

above ground storage tank  
air quality  
asbestos/lead-based paint  
baseline environmental assessment  
brownfield redevelopment  
building/infrastructure restoration  
caisson/piles  
coatings  
concrete  
construction materials services  
corrosion  
dewatering  
drilling  
due care analysis  
earth retention system  
environmental compliance  
environmental site assessment  
facility asset management  
failure analyses  
forensic engineering  
foundation engineering  
geodynamic/vibration  
geophysical survey  
geosynthetic  
greyfield redevelopment  
ground modification  
hydrogeologic evaluation  
industrial hygiene  
indoor air quality/mold  
instrumentation  
masonry/stone  
metals  
nondestructive testing  
pavement evaluation/design  
property condition assessment  
regulatory compliance  
remediation  
risk assessment  
roof system management  
sealants/waterproofing  
settlement analysis  
slope stability  
storm water management  
structural steel/welding  
underground storage tank

## **PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**

**26500 NORTHWESTERN HIGHWAY  
SOUTHFIELD, MICHIGAN**

### **PREPARED FOR:**

26500 Northwestern Highway, LLC  
c/o Kresch Legal  
24100 Southfield Road, Suite 100  
Southfield, MI 48075

### **PREPARED BY:**

SOIL AND MATERIALS ENGINEERS, INC.  
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PLYMOUTH, MICHIGAN 49170

**SME Project Number: PE54232D-06**

**June 21, 2011**



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June 21, 2011

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26500 Northwestern Highway, LLC  
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24100 Southfield Road, Suite 100  
Southfield, Michigan 48075

RE: Phase II Environmental Site Assessment Report  
26500 Southfield Road  
Southfield, Michigan 48076  
SME Project Number: PE54232D-06


Dear Mr. Kresch:

Soil and Materials Engineers, Inc. (SME) has prepared this report to summarize the results of the environmental assessment conducted at 26500 Northwestern Highway, in the city of Southfield, Oakland County, Michigan (Property).


We appreciate the opportunity to be of continued service to you on this project. If you have any questions or comments, please call.

Very truly yours,

**SOIL AND MATERIALS ENGINEERS, INC.**

  
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Enclosures: 2 printed reports and 2 CDs

Distribution: Ms. Rochelle Freeman, City of Southfield (2 CDs)

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consultants in the geosciences, materials, and the environment



## TABLE OF CONTENTS

<b>1.</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>2.</b>	<b>SCOPE OF ASSESSMENT .....</b>	<b>2</b>
<b>3.</b>	<b>SAMPLING AND ANALYSIS PROCEDURES .....</b>	<b>3</b>
3.1	Soil Boring Sampling Procedures.....	4
3.2	Temporary Groundwater Monitoring Well Sampling Procedures.....	4
3.3	Quality Assurance/Quality Control (QA/QC) Procedures.....	5
3.4	Chemical Analyses .....	6
<b>4.</b>	<b>FINDINGS.....</b>	<b>8</b>
4.1	Subsurface Conditions .....	8
4.2	Results of Chemical Analyses .....	9
4.3	QA/QC Evaluation .....	10
<b>5.</b>	<b>CONCLUSIONS.....</b>	<b>12</b>
<b>6.</b>	<b>GENERAL COMMENTS .....</b>	<b>13</b>

### LIST OF TABLES

Table 1:	Soil –Comparison to MDEQ Residential Criteria
Table 2:	Groundwater – Comparison to MDEQ Residential Criteria

### LIST OF FIGURES

Figure 1:	Site Location Map
Figure 2:	Soil Boring Location Diagram

### LIST OF APPENDICES:

Appendix A:	Soil Boring Logs
Appendix B:	Laboratory Chemical Analysis Reports
Appendix C:	Geophysical Report

## 1.0 INTRODUCTION

This report documents the activities and findings of a Phase II Environmental Site Assessment (ESA) of the site located at 26500 Northwestern Highway, in the City of Southfield, Oakland County, Michigan (hereinafter referred to as the Property). At the time of the investigation, the Property consisted of four acres of land developed with a four-story commercial building and paved parking areas. The Property was located in a primarily commercial area south of I-696, north of M-10, and east of Lahser Road. The general location of the Property is depicted in Figure 1, and existing Property features along with soil boring locations are displayed in Figure 2.

The objective of the Phase II ESA was to assess potential environmental impact associated with Recognized Environmental Conditions (RECs) at the Property identified in SME's August 18, 2010, Phase I ESA. SME identified the following RECs in connection with the Property:

- The potential for environmental impact on the Property associated with:
  - Potential presence of heating oil underground storage tanks (USTs) associated with former structures on the Property;
  - Former nursery operations and the possible associated use and storage of herbicides, pesticides and fungicides;
  - The northwest adjoining former filling station and auto repair shop at 26760 Lahser; and
  - The southwest adjoining former filling station at 26550 Northwestern Highway.

Before conducting the Phase II ESA, SME retained Geosphere, Inc. to conduct a geophysical survey on the Property to assess the potential buried heating oil USTs identified as a REC in the Phase I ESA. SME selected the geophysical survey areas based on features of interest observed on historical aerial photographs (reviewed during SME's Phase I ESA). The geophysical survey was conducted on January 4 and 5, 2011. Geosphere established a grid with 10-foot node spacing across the survey areas. North-south and east-west transects were then traversed by foot while handheld EM31 and gradiometer and magnetometer instruments logged data for each transect. Geosphere used their collected geophysical data to interpret and mark the locations of interpreted buried features. Geosphere's findings and survey-specific maps are presented in their January 19, 2011, geophysical report (see Appendix C).

SME's specific scope of assessment, assessment procedures, results of the assessment and conclusions are presented in the following sections.

## 2.0 SCOPE OF ASSESSMENT

The Phase II ESA was conducted in accordance with the scope of service described in SME's February 15, 2011, Sampling and Analysis Plan.

The following is a summary of the Phase II ESA scope of work, which is discussed in more detail in Section 3.0:

- Eleven (11) soil borings (SB1 through S11; Figure 2) were advanced to depths ranging from approximately 4 feet to 16 feet below the ground surface (bgs). SME collected soil samples from each boring location at two foot intervals. SME containerized one soil sample from soil boring locations SB1 through SB4, SB6 through SB8, SB10, and SB11 for potential chemical analysis. The soil samples were field screened and the interval with highest potential for impact (based on the field screening) was sampled.
- A temporary groundwater monitoring well was installed at soil boring locations SB3 through SB10. SME collected a groundwater sample from each of these monitoring well for potential chemical analyses. The groundwater samples from SB3, SB4, SB6, and SB7 were not submitted for laboratory analysis because based on the REC being assessed and/or encountered field conditions, soil samples were selected for chemical analyses in lieu of groundwater samples at these locations.
- SME compared the analytical results to Michigan Department of Environmental Quality (MDEQ) Part 201 Generic Residential Cleanup Criteria and Screening Levels, dated March 25, 2011.
- The results of chemical analyses were evaluated, and this Phase II ESA report was prepared.

A Phase II ESA report was prepared rather than a Baseline Environmental Assessment because in SME's opinion, the Property was not defined as a "facility."

### 3.0 SAMPLING AND ANALYSIS PROCEDURES

SME advanced 11 direct push soil borings (SB1 through SB11), and collected soil and groundwater samples at the Property on May 10 and May 16, 2011. The sampling locations are depicted on Figure 2. Borings were advanced to depths ranging from 4 feet to 16 feet below ground surface (bgs); groundwater was encountered at 9 of the 11 locations. SME collected soil samples from each boring location at two foot intervals. One soil samples from each location, excluding SB5 and SB9, were containerized for potential sample analysis based on visual observations, photoionization detector (PID) readings, staining, or odors. One groundwater sample was also collected from soil borings SB3 through SB10 for potential analysis. The specific sample intervals submitted for laboratory analysis are provided on Tables 1 and 2. SME advanced the following soil borings to evaluate the RECs identified in the Phase I ESA:

- Three soil borings (SB1 through SB3) were advanced to evaluate the potential for impact associated with the presence of fill on the Property.
- Two soil borings (SB4 and SB7) were advanced to evaluate the potential for subsurface impact related to heating oil USTs that that may have been used on the Property. Soil boring SB7 was also intended to address former nursery operations on the Property.
- One soil boring (SB5) was advanced to evaluate the potential for subsurface impact associated with migration of residual or unknown contamination from the northwest-adjointing former filling station and auto repair site onto the Property.
- One soil boring (SB6) was advanced to evaluate the potential for subsurface impact related to heating oil USTs and former nursery operations on the Property.
- Two soil borings (SB8 and SB10) were advanced to evaluate the potential for subsurface impact related to heating oil USTs, the presence of contaminated fill, and former nursery operations on the Property.
- One soil boring (SB9) was advanced to evaluate the potential for subsurface impact related to heating oil USTs, as well as migration of potential residual or unknown contamination from the southwest-adjointing former filling station site.
- One soil boring (SB11) was advanced to evaluate the potential for subsurface impact related to contaminated fill and/or former nursery operations on the Property.

Sampling and analysis procedures used in this assessment were in accordance with procedures and guidance published by the MDEQ in relevant operational memoranda, and in accordance with the Sampling and Analysis Plan for the site dated February 15, 2011. Summaries of the sampling and analysis procedures are presented in the following subsections.

### **3.1 Soil Boring Sampling Procedures**

SME collected soil samples using a truck-mounted Geoprobe direct-push sampling rig. Soil samples were collected with the direct-push coring device using 48-inch long samplers. The samplers were lined with disposable acetate liners. Discrete soil samples were collected from the liners for soil classification and field screening by cutting open the acetate liner with a decontaminated utility knife and transferring the soil into an unpreserved plastic re-sealable bag. The discrete soil samples were classified in accordance with the Unified Soil Classification System (USCS).

SME screened soil samples in the field with a 10.6-eV photoionization detector (PID). The field screening was conducted by allowing time for the headspace above the soils collected for PID screening to equilibrate in the re-sealable plastic bags. The bags were then opened enough to insert the tip of the PID. The PID registers the presence of volatile organic vapors with a detection limit of approximately one part per million (ppm). Soil classifications and field screening results are presented in the Soil Boring Logs provided in Appendix A.

In addition to soil classification and field screening, soil samples were selected for potential chemical analysis and transferred into laboratory supplied container(s). SME selected soil samples for potential chemical analysis based on sample depth, field screening results, soil characteristics, and the specific REC being assessed. Soil samples collected for analysis of VOCs were collected directly from the acetate liner with a laboratory-supplied syringe-style coring device and placed in a 40-ml vial with methanol preservative in accordance with EPA Method 5035A. Soil samples collected for analysis of other constituents were homogenized prior to transferring the soil to a laboratory-supplied, pre-cleaned, 8-ounce glass jar.

Residual soil cuttings generated from the soil borings were returned to the corresponding bore hole after sampling activities were completed. The remaining space in the bore holes was filled with bentonite chips and patched with either asphalt or soil.

### **3.2 Temporary Groundwater Monitoring Well Sampling Procedures**

SME collected groundwater samples from soil borings SB3 through SB11 for potential chemical analyses. Groundwater samples were collected by installing a pre-packed temporary

PVC well screen into the saturated zones in the open borehole. The well screens were five feet in length, had a slot size of 0.010 inches, and were attached to one inch diameter PVC risers. The top of the well screens were placed at or above the depth of groundwater encountered during drilling. SME purged groundwater using polyethylene tubing connected to a peristaltic pump at a low-flow rate between 100 milliliter per minute (mL/min) and 500 mL/min and allowed the groundwater to stabilize prior to sampling. Water quality parameters pH, specific conductivity, and temperature were monitored for stabilization with an Oakton pH/Con 10 Meter. SME collected un-filtered groundwater samples using laboratory-supplied, pre-preserved containers directly from the effluent end of the pump tubing. After purging was completed, groundwater samples were collected from each well at the same purging flow rate. The analytical laboratory supplied pre-cleaned containers with appropriate preservatives for groundwater samples. After sample collection, the containerized samples were stored in ice filled coolers, until delivery to the analytical laboratory.

### **3.3 Quality Assurance/Quality Control (QA/QC) Procedures**

MDEQ protocols described in MDEQ-RRD *Operational Memorandum No. 2*, October 22, 2004, and procedures described in the February 15, 2011 *Sampling and Analysis Plan* for the site were used to guide sample collection, management, analyses, and quality assessment/quality control (QA/QC) procedures. Soil boring sampling tools were cleaned prior to drilling and/or between each boring location with a high pressure/temperature wash. In addition, prior to cutting each acetate liner, the utility knife was cleaned with a laboratory grade detergent and rinsed with distilled water. New pairs of disposable nitrile sampling gloves were used to transfer each soil sample from the acetate liner or groundwater samples to the sample jars for potential chemical analyses.

The analytical laboratory supplied the containers used for soil and groundwater sample collection. The sample jars were supplied pre-cleaned and containing the appropriate preservative. After sample collection, the containerized samples were kept cool, i.e. kept on ice or refrigerated, until delivery to the analytical laboratory. SME field staff followed chain-of-custody procedures to document the sample handling sequence.

SME submitted the soil and groundwater samples to Fibertec for chemical analyses. Analytical methods, laboratory reporting limits (RLs), and chain of custody documentation are provided in the analytical report in Appendix B. The analytical methods and detection limits were consistent with MDEQ – RRD's Operational Memorandum No. 2, dated July 5, 2007.



### **3.4 Chemical Analyses**

SME selected the target analytes for this assessment as representative of the hazardous substances most likely to have been released on the Property based on the current/historical operations and types of chemicals stored on the Property. The following list explains the sampling rationale for the chosen parameters and sampling locations analyzed for the assessment:

- SB1 through SB3 were advanced to evaluate the potential for impact associated with the presence of contaminated fill. One soil sample was collected from each of soil borings SB1 through SB3 and analyzed for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and 10 Michigan Metals and hexavalent chromium, which are typical screening analytes for fill of unknown nature/origin.
- SB4 was advanced to evaluate the potential for subsurface impact related to heating oil USTs. Soil samples collected from SB4 were analyzed for VOCs and PAHs, which are applicable for assessing heating oil impacts.
- SB5 was advanced to evaluate the potential impact on the Property associated with migration of residual or unknown contamination on the northwest-adjointing former filling station and auto repair site. Groundwater collected from SB5 was analyzed for VOCs, PAHs, cadmium, chromium, and lead, which are typical screening analytes for fuel/waste oil USTs.
- SB6 and SB7 were advanced to evaluate the potential for subsurface impact related to heating oil USTs and nursery operations. One soil sample collected from SB6 and one soil sample collected from SB7 was analyzed for VOCs and PAHs (heating oil USTs) and pesticides, herbicides, arsenic, copper, lead, cyanide and sulfate (nursery operations).
- SB8 and SB10 were advanced to evaluate the potential for subsurface impact related to heating oil USTs, the presence of contaminated fill, and nursery operations. One soil sample and one groundwater sample collected from SB8, and one soil sample and one groundwater sample collected from SB10, were analyzed for VOCs, PAHs, 10 Michigan Metals, pesticides, herbicides, arsenic, copper, lead, cyanide, sulfate, and hexavalent chromium. Together, these analytes are applicable for assessing heating oil USTs, unknown fill, and nursery operations.
- SB9 was advanced to evaluate the potential for subsurface impact related to heating oil USTs, as well as potential migration of residual or unknown contamination on the southwest-adjointing former filling station site. The groundwater sample collected

from SB9 was analyzed for VOCs, PAHs, cadmium, chromium, and lead, which are applicable for assessing heating/fuel oil USTs.

- SB11 was advanced to evaluate the potential for subsurface impact related to contaminated fill and/or nursery operations. One soil sample collected from SB11 was analyzed for VOCs, PAHs, 10 Michigan Metals, pesticides, herbicides, arsenic, copper, lead, cyanide, sulfate, and hexavalent chromium.

Fibertec Environmental Services (Fibertec) of Holt, Michigan provided laboratory services for the assessment.

Laboratory analyses and field screening were performed as described in the project Sampling and Analysis Plan (SAP) dated February 15, 2011. The samples were analyzed for the following constituents using the referenced methods:

- VOCs – EPA Method 8260
- PAHs – EPA Method 8270
- Metals – EPA Method 6020
- Mercury – EPA Method 7471 B
- Herbicides – EPA Method 8151
- Pesticides – EPA Method 8081
- Total Cyanide (Soil) – EPA Method 9014
- Available Cyanide (Groundwater) – EPA Method 1677
- Sulfate – EPA Method 9056

Chemical analysis methods for each analyte group generally conformed to the procedures described in the EPA SW-846 and MDEQ-RRD's October 22, 2004, ***Operational Memorandum No. 2*** (Op Memo 2). Specific sample preparation, analysis methods, and method reporting limits (RLs) are also included in the laboratory chemical analysis reports provided in Appendix B.

## 4.0 FINDINGS

The subsurface conditions observed during the Phase II ESA and results of chemical analyses are presented in the following subsections.

### **4.1 Subsurface Conditions**

Soil boring logs documenting observed subsurface conditions are provided in Appendix A. Figure No. 2 is a Soil Boring Location Diagram. A generalized summary of the soils encountered below the surface cover (topsoil, concrete, or asphalt) in the borings is given below, beginning at the existing ground surface and continuing downward.

- Stratum 1 – Fill – Fill was observed beneath the surface cover in each soil boring with the exception of soil boring SB5, located approximately 130 feet north-northwest of the northwest corner of the building. The fill varied in composition from gravelly medium to coarse sand to clayey fine sand. The thickness of the fill ranged from less than half a foot, at soil boring SB6 located near the northwest corner of the building, to approximately four and a half feet, at soil boring location SB4 located east of the building on the southern portion of the parking lot. Groundwater was not encountered in the fill stratum in the boring locations. No staining, odors, or VOCs (based on PID screening) were observed in the fill stratum.
- Stratum 2 – Native Sand – Native sand, varying in composition from medium sand to fine sand with trace to some silt, was encountered beneath the fill stratum at each boring with the exception of SB5; the native sand stratum was encountered directly beneath surface cover at soil boring SB5. The sand was first encountered at depths of three inches to 4.5 feet bgs. The sand persisted to the explored extent of each boring with the maximum explored depth of boring of 16 feet bgs at soil boring SB11, located near the western end of the Property. Groundwater was encountered in the sand stratum at depths ranging from 8.5 feet below ground surface (bgs), at soil boring location SB8 located approximately 110 west of the northwest corner of the building, to 12 feet bgs, at soil boring location SB11. Soil Borings SB1 and SB2, located on the northern portion of the Property, were advanced to four feet bgs and therefore no groundwater was encountered in those borings. Groundwater on the eastern portion of the Property was observed between 10 and 11 feet bgs at soil borings locations SB3 and SB4 respectively. No staining, odors, or VOCs (based on PID screening) were observed in the sand stratum.

Refer to the logs for the soil and groundwater conditions at the specific soil boring locations. Stratification lines on the logs indicate a general transition between soil types, and are not intended to show an area of exact geological change.

## **4.2 Results of Chemical Analyses**

The results from chemical analyses of soil and groundwater samples are summarized in Tables 1 and 2. The chemical analyses results in Tables 1 and 2 were compared to the Part 201 generic residential cleanup criteria to evaluate environmental liability management for the prospective purchaser. Copies of the laboratory chemical analysis reports are attached in Appendix B.

### **Results for Chemical Analyses of Soil Samples**

The results of the chemical analysis of soil samples demonstrated that zinc and cyanide were present in soil at concentrations in excess of the Part 201 Groundwater Surface Water Interface Protection Criteria (GSIP). Concentrations of zinc and cyanide in soil samples collected from SB3 and SB11, respectively, exceed GSIP. In SME's opinion, the zinc in the soil sample collected from SB3 exceeding the GSI criteria does not warrant the Property being designated a "facility" pursuant to Part 201 of Michigan Act 451. The zinc concentrations at the Property are representative of background levels in southeastern Michigan. Zinc was measured in soil sample SB3-S2 above Part 201 residential drinking water protection and GSI criteria (170,000 µg/kg). Based on a t-test statistical analysis of the Property data and the background data set for southeast Michigan, there is no significant differences in the data set. In SME's opinion, zinc concentrations in the soils on the Property are representative of background levels in southeastern Michigan.

An analysis of the data demonstrates the zinc at SB3 does not represent impact from anthropogenic sources and as such, does not warrant the Property being designated a "facility." In addition to this analysis, the pathway would not be relevant at the Property. The pathways for zinc in soil to reach a surface water body is either by leaching to groundwater and then groundwater migration to the surface water body, or into a storm sewer that flows to a surface water body. The zinc in soil would not pose a risk to surface water bodies for the following reasons:

- Zinc was not detected above target method detection levels in any of the groundwater samples collected from the Property. Therefore, it does not appear that zinc is leaching from the soil into groundwater.
- The nearest surface water body is an intermittent stream, located approximately 1,800 feet to the south of the Property. Based on the distance of the nearest surface water body, it is unlikely that zinc, if it reached groundwater would reach this surface water body.

- The one sample containing zinc above the criteria is the only sample at the Property that exceeded the criteria, indicating the extent of soil containing zinc that could pose a risk to groundwater is small and not a significant threat to groundwater.
- There is no possibility that groundwater can infiltrate the storm sewers or the utility corridors, as the invert depth of the storm sewers in the area of SB3 (3.2 to 4.2 feet) is well above groundwater in this area, which is encountered at a depth 10 feet bgs in this area.

The cyanide in soil at SB11 that exceeds the GSIP criteria does not warrant the Property being designated a facility for the following reasons:

- Cyanide was not detected above target method detection levels in any of the groundwater samples collected from the Property, demonstrating the cyanide is not leaching to groundwater.
- The one sample containing cyanide above the criteria is the only sample at the Property that exceeded the criteria, indicating the extent of soil containing cyanide that could pose a risk to groundwater is small and not a significant threat to groundwater.
- There is no possibility that groundwater can infiltrate the storm sewers or the utility corridors as the invert depth of the storm sewers in the area of SB11 (10.3 feet) is well above groundwater in this area, which is encountered at a depth 12 feet bgs in this area.

#### **4.3 QA/QC Evaluation**

The laboratory case narratives and soil RLs are provided in the laboratory chemical analysis reports in Appendix B. No VOCs were measured in the trip blank, methanol blank, equipment blank, or field blank samples at concentrations greater than the RLs. The soil results from the duplicate sample collected at SB8 showed excellent agreement with respect to the metals with a relative percent difference ranging from 3% to 29% depending on the metal. The soil results from the duplicate sample collected at SB10 also showed agreement with respect to the metals with a relative percent difference ranging from 9% to 75% depending on the metal. Analytes, excluding metals, in duplicate and original soil samples from soil borings SB8 and SB10 were not detected above laboratory reporting limits. The duplicate groundwater samples

collected at soil boring locations SB8 and SB10 showed excellent agreement with respect to the metals with a maximum relative percent difference below 7%, with the exception of copper in soil Boring SB8. Copper was not detected in the original groundwater sample for SB8 and was measured at (4.1 µg/L) in the duplicate sample, which is less than half the most restrictive Part 201 residential cleanup criteria for copper in groundwater of (13 µg/L). Analytes, excluding metals, in duplicate and original groundwater samples from soil borings SB8 and SB10 were not detected above laboratory reporting limits.



## **5.0 CONCLUSIONS**

The available assessment data revealed no evidence of environmental impact of soil or groundwater on the Property at levels above Part 201 generic residential use criteria with the exception of zinc and cyanide in soil above GSIP criteria. As presented in Section 4.2 of this report, in SME's opinion, the soil and groundwater data does not support the conclusion that the Property is a "facility" as defined by Part 201 of Michigan Act 451.

## **6.0 GENERAL COMMENTS**

The conclusions in this Phase II ESA report are based on information obtained from the area of investigation only as described in this report. The assessment was designed for the purposes described herein and was not designed as a complete characterization of the subsurface conditions at the Property. SME cannot attest to the possibility that other regulated constituents are present outside the evaluated area and within the Property boundary. If additional surface, subsurface, or chemical data become available after the date of issue of this report, the conclusions contained in this report may require modification after SME has reviewed the additional information. This review by SME of additional information would be conducted upon receipt of a request from the client. SME's conclusions are based on interpretation of the aforementioned regulations. The MDEQ interpretation may vary.

In the process of obtaining information in preparation of this letter report, procedures were followed that represent reasonable practices and principles in a manner consistent with that level of care and skill ordinarily exercised by members of this profession currently practicing under similar conditions.

## TABLES

TABLE NO. 1  
SOIL SAMPLE RESULTS  
Page 1 of 1  
SME Project No. PE54232D-06

			Groundwater Protection			Indoor Air	Ambient Air (Y)				Direct Contact													
Constituent*	Chemical Abstract Service Number	Statewide Background Levels	Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria & RBSLs	Direct Contact Criteria & RBSLs	Soil Saturation Concentratio n Screening Levels	Sample Identification	SB1-S1	SB2-S1	SB3-S2	SB4-S4	SB6-S1	SB7-S1	SB8-S1	SB8-S1 DUP 1-S	SB10-S1	SB10-S1 DUP2-S	SB11-S1
													Sample Depth (feet bgs)	0-2	0-2	2-4	6-8	0-2	0-2	0-2	0-2	0-2	0-2	0-2
*(Refer to detailed laboratory report for method reference data)													Collect Date	5/16/2011	5/16/2011	5/16/2011	5/10/2011	5/10/2011	5/10/2011	5/10/2011	5/10/2011	5/16/2011	5/16/2011	5/16/2011
													REC Addressed	Possible Fill				Heating Oil UST / Nursery Operations		Heating Oil UST / Nursery Operations / Possible Fill				Nursery Operations / Possible Fill
Volatiles																								
Dibromochloropropane	96-12-8	NA	10	ID	1,200	1,200	13,000	13,000	13,000	13,000,000	1,200	1,200		<11	<11	<12	<11	<11	<11	<11	<11	<11	<11	
Ethylene dibromide	106-93-4	NA	20	110	500	670	1,700	1,700	3,300	14,000,000	92	890,000		<20	<20	<20	<22	<23	<22	<20	<22	<20	<20	
Semivolatiles, PAHs																								
Fluoranthene	206-44-0	NA	730,000	5,500	730,000	1,000,000,000	740,000,000	740,000,000	740,000,000	9,300,000,000	46,000,000	NA		<330	<330	380	<330	<330	<330	<330	<330	<330	<330	
Metals																								
Arsenic	7440-38-2	5,800	5,800	5,800	2,000,000	NLV	NLV	NLV	NLV	720,000	7,600	NA		1,800	2,000	4,000	NA	2,400	1,900	2,200	2,300	2,900	4,000	3,900
Barium	7440-39-3	75,000	1,300,000	440,000	1,000,000,000	NLV	NLV	NLV	NLV	330,000,000	37,000,000	NA		5,100	4,700	72,000	NA	NA	NA	6,100	5,900	9,700	17,000	25,000
Cadmium	7440-43-9	1,200	6,000	3,600	230,000,000	NLV	NLV	NLV	NLV	1,700,000	550,000	NA		53	<50	780	NA	NA	NA	50	56	150	180	260
Chromium, Total	7440-47-3	18,000 (total)	1,000,000,000	3,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	330,000,000	790,000,000	NA		2,700	3,000	19,000	NA	NA	NA	4,400	3,400	6,100	6,700	7,600
Chromium VI	18540-29-9	NA	30,000	3,300	140,000,000	NLV	NLV	NLV	NLV	260,000	2,500,000	NA		<2,800	<2,700	<2,900	NA	NA	NA	<2,700	<2,700	<2,800	<2,800	<2,800
Copper	7440-50-8	32,000	5,800,000	73,000	1,000,000,000	NLV	NLV	NLV	NLV	130,000,000	20,000,000	NA		4,400	4,800	32,000	NA	5,300	5,100	4,300	4,500	5,500	7,600	8,700
Lead	7439-92-1	21,000	700,000	2,800,000	ID	NLV	NLV	NLV	NLV	100,000,000	400,000	NA		2,000	2,600	130,000	NA	8,000	9,500	2,800	2,300	7,400	270,000	20,000
Mercury, Total	7439-97-6	130	1,700	130	47,000	48,000	52,000	52,000	52,000	20,000,000	160,000	NA		<50	<50	<50	NA	NA	NA	<50	<50	<50	<50	<50
Selenium	7782-49-2	410	4,000	410	78,000,000	NLV	NLV	NLV	NLV	130,000,000	2,600,000	NA		<200	210	350	NA	NA	NA	230	<200	280	200	<200
Silver	7440-22-4	1,000	4,500	1,000	200,000,000	NLV	NLV	NLV	NLV	6,700,000	2,500,000	NA		<100	<100	350	NA	NA	NA	<100	<100	<100	<100	<100
Zinc	7440-66-6	47,000	2,400,000	170,000	1,000,000,000	NLV	NLV	NLV	NLV	ID	170,000,000	NA		12,000	13,000	390,000	NA	NA	NA	13,000	14,000	21,000	31,000	70,000
Pesticides																								
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	2,500	30,000	12,000	22,000	25,000	1,700,000	2,600	NA		NA	NA	NA	NA	<23	<22	<21	<22	<22	<22	<23
Lindane	58-89-9	NA	20	20	7,100	ID	ID	ID	ID	ID	8,300	NA		NA	NA	NA	NA	<23	<22	<21	<22	<22	<22	<23
Nonspecific Grouping																								
Cyanide	57-12-5	390 (total)	4,000	100	250,000	NLV	NLV	NLV	NLV	250,000	12,000	NA		NA	NA	NA	NA	<200	<200	<200	<200	<200	<200	570
Sulfate	14808-79-8	NA	5,000,000	NA	ID	NLV	NLV	NLV	NLV	ID	ID	NA		NA	NA	NA	NA	<10,000	16,000	<10,000	<10,000	<10,000	11,000	15,000

- Notes:
- Concentrations reported in micrograms per kilogram (ug/kg).
  - Criteria taken from RRD Operational Memorandum No. 1, Table 2. Soil: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening levels, dated March 25, 2011.
  - Only detected analytes or analytes with reporting limits above criteria are displayed in the table. See Analytical for full list of analyzed parameters. Cyanide and Sulfate were included in the table because of their non-specific grouping.
  - Detected results shown in BOLD. Results exceeding one or more criteria are shaded, as are the criteria.
  - CS - Criterion is specific to individual constituent.
  - <RL - Analytical result was below laboratory reporting limit(s).
  - Bold <RL results have an elevated reporting limit that exceeds one or more criteria.
  - ID - Insufficient data to develop criteria.
  - NA = Not applicable or not analyzed.
  - NLV - Not likely to volatilize.
  - \* = GSI Protection was calculated for the indicated metals using the MDNRE spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI. Results are presented for surface water receiving bodies not protected as a drinking water source.
  - Italicized = the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.

TABLE NO. 2  
GROUNDWATER SAMPLE RESULTS  
Page 1 of 2  
SME Project No. PE54232D-06

Constituent*	Chemical Abstract Service Number	Residential & Commercial Drinking Water Criteria & RBSLs	Groundwater Surface Water Interface Criteria & RBSLs	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Groundwater Contact Criteria & RBSLs	Sample Identification	SB5-GW	SB8-GW	SB8-GW DUP 1 (GW)	SB9-GW	SB10-GW	DUP2-GW
*(Refer to detailed laboratory report for method reference data)						Depth	8.5 - 13.5	8.5 - 13.5	8.5 - 13.5	10 - 15	10 - 15	10 - 15
						Collect Date	5/10/2011	5/10/2011	5/10/2011	5/10/2011	5/16/2011	5/16/2011
						REC Addressed	Northwest Adjoining Former Filling Station & Auto Repair	Possible Fill / Heating Oil UST / Nursery Operations	Possible Fill / Heating Oil UST / Nursery Operations	Heating Oil UST / Southwest Adjoining Former Filling Station	Possible Fill / Heating Oil UST / Nursery Operations	
<b>Volatiles</b>												
Dibromochloropropane	96-12-8	0.2	ID	1,200	390		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylene dibromide	106-93-4	0.1	5.7	2,400	25		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
<b>Semivolatiles, PAHs</b>												
SVOCs	CS	CS	CS	CS	CS		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Metals</b>												
Arsenic	7440-38-2	10	10	NLV	4,300		NA	7.6	8.1	NA	<5.0	<5.0
Barium (B)	7440-39-3	2,000	670	NLV	14,000,000		NA	120	120	NA	210	210
Copper (B)	7440-50-8	1,000	13	NLV	7,400,000		NA	<4.0	4.1	NA	<4.0	<4.0
Mercury, Total	7439-97-6	2.0	0.0	56	56		NA	<0.20	<0.20	NA	<0.20	<0.20
<b>Pesticides</b>												
Dinoseb	88-85-7	7.0	1.0	NLV	7,000		NA	<5.0	<5.0	NA	<5.0	<5.0
<b>Nonspecific Grouping</b>												
Cyanide (P,R)	57-12-5	200	5.2	NLV	57,000		NA	<5.0	<5.0	NA	<5.0	<5.0
Sulfate	14808-79-8	250,000	NA	NLV	ID		NA	140,000	140,000	NA	180,000	180,000

Notes are included on back page.

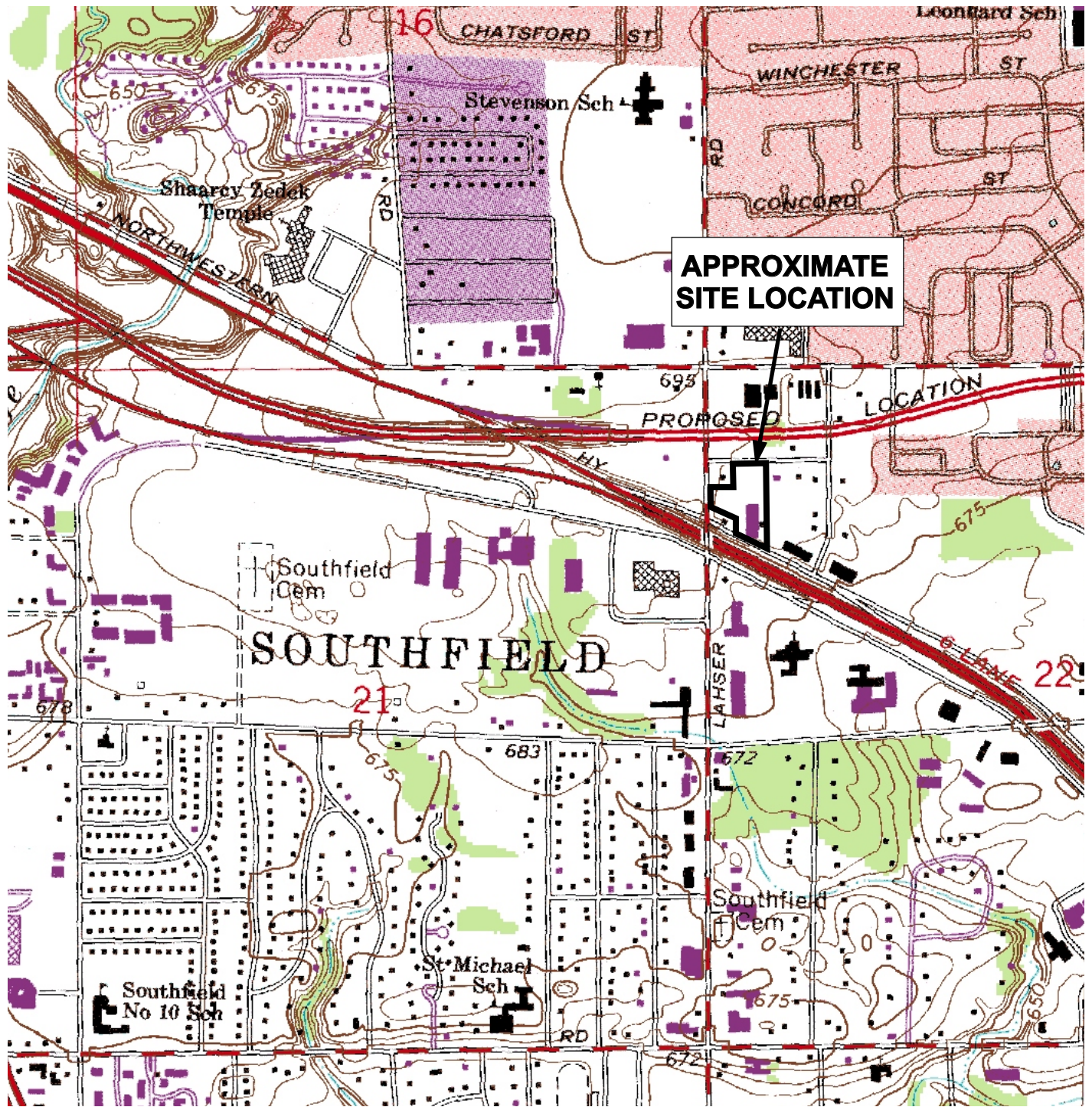
TABLE NO. 2  
GROUNDWATER SAMPLE RESULTS  
Page 2 of 2  
SME Project No. PE54232D-06

Notes:

1. Concentrations reported in micrograms per liter (ug/L).
2. Criteria taken from RRD Operational Memorandum No. 1, Table 1. Groundwater: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening levels, dated March 25, 2011.
3. Only detected analytes or analytes with reporting limits above criteria are displayed in the table. See Analytical for full list of analyzed parameters. Cyanide and Sulfate were included in the table because of their non-specific grouping.
4. Detected results shown in BOLD. Results exceeding one or more criteria are shaded, as are the criteria.
5. CS - Criterion is specific to individual constituent.
6. <RL - Analytical result was below laboratory reporting limit(s).
7. Bold <RL results have an elevated reporting limit that exceeds one or more criteria.
8. ID - Insufficient data to develop criteria.
9. NA = Not applicable or not analyzed.
10. NLV - Not likely to volatilize.
11. \* = GSI Protection was calculated for the indicated metals using the MDNRE spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI. Results are presented for surface water receiving bodies not protected as a drinking water source.
12. *Italicized* = the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
13. \*\* = Total xylenes was calculated as the sum of o-xylene and m,p-xylene concentrations.



## FIGURES



NOTE:  
TOPOGRAPHIC MAPS TAKEN FROM REDFORD, MICHIGAN 7.5 SERIES USGS TOPOGRAPHIC QUADRANGLE  
DATED 1968 AND PHOTOREVISED 1983.



plymouth  
bay city  
grand rapids  
kalamazoo  
lansing  
shelby twp.  
toledo  
traverse city

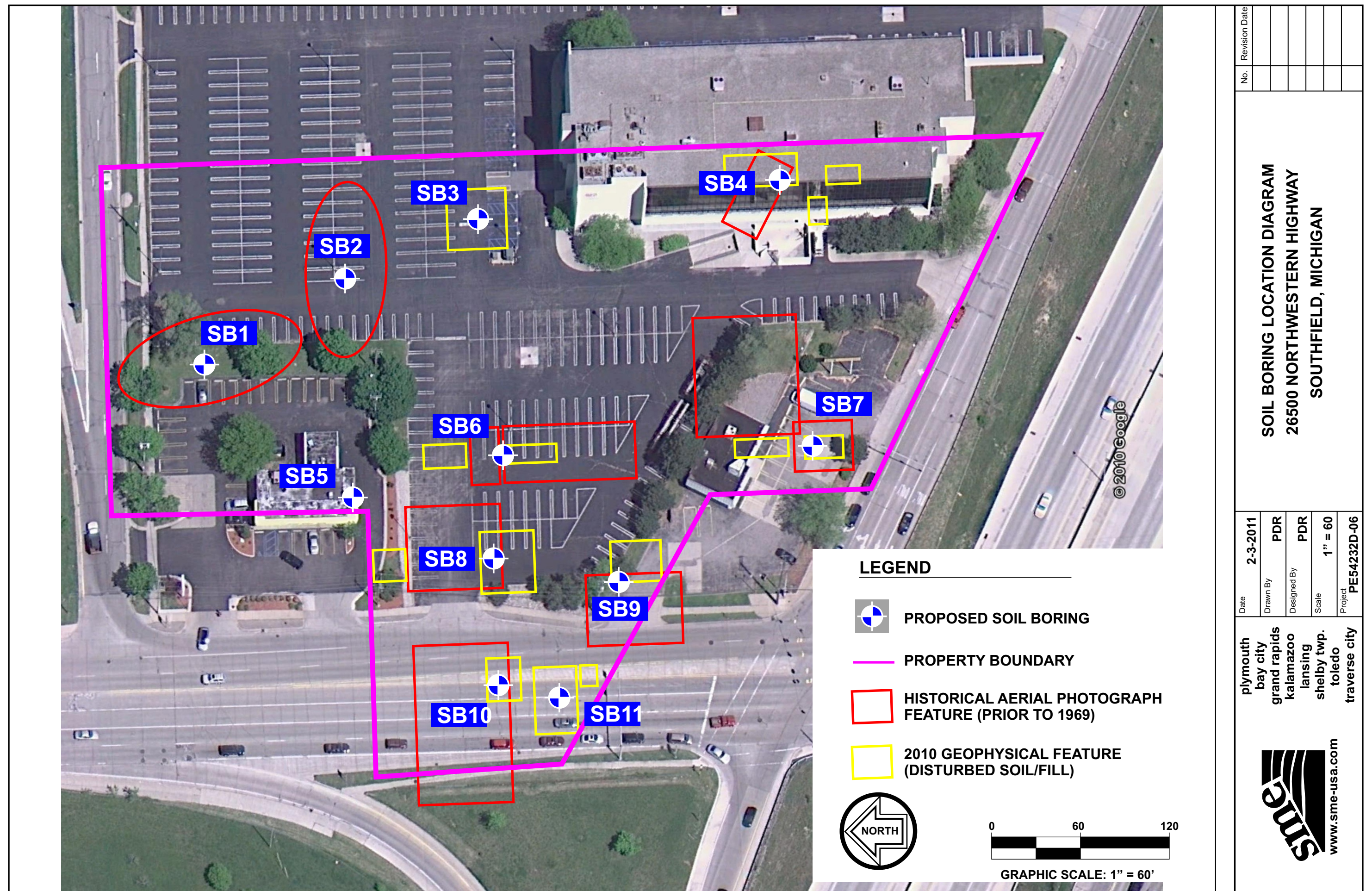
Date	10-30-09
Drawn By	PDR
Designed By	PDR
Scale	NTS
Project	PE54232C-04

**SITE LOCATION DIAGRAM**  
**26500 NORTHWESTERN HIGHWAY**  
**SOUTHFIELD, MICHIGAN**

No.	Revision Date

Figure No. 1







**APPENDIX A**

**SOIL BORING LOGS**



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

CLIENT:

A/E:

BORING SB1

BY: SS

START: 05/10/2011

END: 05/10/2011

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Gravelly Medium to Coarse Sand- Black- Dry (GP-SP/Fill)	S1	19	<1		
		Clayey Fine to Medium Sand- Trace Gravel- Black (SC/Fill)					
		Fine Sand with Trace to Some Silt- Light Brown- Dry (SP-SM)	S2	19	<1		
		END OF BORING AT 4 FEET					
5							
10							
15							
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. GROUNDWATER WAS NOT ENCOUNTERED. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
☼ GROUNDWATER ENCOUNTERED DURING DRILLING ☼ GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING:

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

A/E:

BORING SB2

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

BY: SS

START: 05/10/2011

END: 05/10/2011

CLIENT:

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Gravelly Medium to Coarse Sand- Black- Dry (GP-SP/Fill)	S1	20	<1		
		Clayey Medium to Coarse Sand- Trace Gravel- Black (SP/Fill)					
		Fine Sand with Trace to Some Silt- Light Brown- Moist (SP-SM)	S2	20	<1		
		END OF BORING AT 4 FEET					
5							
10							
15							
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. GROUNDWATER WAS NOT ENCOUNTERED. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
☼ GROUNDWATER ENCOUNTERED DURING DRILLING ☼ GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING:

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS





# soil and materials engineers, inc.

**PROJECT NAME:** 26500 NORTHWESTERN HWY

**A/E:**

**BORING SB3**

**PROJECT LOCATION:** SOUTHFIELD, MICHIGAN

**BY:** SS

**START:** 05/10/2011

**END:** 05/10/2011

**CLIENT:**

**PROJECT NUMBER:** PE54232D-06 **SHEET:** 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Gravelly Medium to Coarse Sand- Brown (GP-SP/Fill)	S1	20	<1		
		Clayey Fine Sand- Trace Gravel- Trace Organics- Brown- Moist (SC/Fill)	S2	20	<1		
5			S3	19	<1		
		Fine to Medium Sand with Trace to Some Silt- Occasional Silt Seams- Brown- Moist (SP-SM)	S4	19	<1		
10			S5	24	<1		
		Fine Sand with Trace to Some Silt- Mottled Brown and Gray- Wet (SP-SM)	S6	24	<1		
		END OF BORING AT 14 FEET	S7	12	<1		
15							
20							
25							
30							
35							
<b>WATER LEVEL OBSERVATIONS</b> GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING			<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 8 TO 13 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				

**DRILLER:** SME

**WATER LEVEL DURING DRILLING:** 10'

**DRILL METHOD:** DIRECT PUSH

**BACKFILL METHOD:** SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

CLIENT:

A/E:

START: 05/10/2011

BORING SB4

END: 05/10/2011

BY: SS

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Medium Sand- Trace Gravel- Trace Slag- Brown- Dry (SP/Fill)	S1	12	<1		
			S2	12	<1		
5		Fine to Medium Sand- Brown- Moist (SP)	S3	15	<1		
			S4	15	<1		
10		Fine to Medium Sand- Brown- Moist 8 to 11 feet- Wet 11 to 12 Feet (SP)	S5	18	<1		
			S6	18	<1		
		Fine Sand- Brown and Gray- Wet (SP-SM)	S7	24	<1		
		Fine Sand- Trace to Some Silt- Gray- Wet (SP-SM)	S8	12	<1		
15		END OF BORING AT 15 FEET					
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS		Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 9.5 TO 14.5 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.					
GROUNDWATER ENCOUNTERED DURING DRILLING							
GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: 11'

BACKFILL METHOD: SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

A/E:

BORING SB5

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

BY: SS

START: 05/10/2011

END: 05/10/2011

CLIENT:

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Medium Sand- Light Brown- Dry (SP)	S1	12	<1		
		Fine to Medium Sand- Trace Organics- Brown- Moist (SP)	S2	12	<1		
5		Fine to Medium Sand- Brown- Moist (SP)	S3	18	<1		
			S4	18	<1		
10		Fine Sand with Trace to Some Silt- Brown and Gray- Moist (SP-SM)	S5	24	<1		
			S6	24	<1		
		Fine Sand with Trace to Some Silt- Gray- Wet (SP-SM)	S7	24	<1		
15		END OF BORING AT 14 FEET					
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 8.5 TO 13.5 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING: 9'

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

CLIENT:

A/E:

BY: SS

START: 05/10/2011

BORING SB6

END: 05/10/2011

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Gravelly Medium to Coarse Sand- Brown (GP-SP/Fill)	S1	15	<1		
		Fine Sand- Trace Fine Gravel- Brown- Moist (SP)	S2	15	<1		
5			S3	24	<1		
		Fine to Medium Sand- Trace to Some Silt- Light Brown- Moist (SP-SM)	S4	24	<1		
		Medium Sand- Trace Gravel- Brown- Moist (SP-SM)	S5	24	<1		
10			S6	24	<1		
		Fine Sand with Trace to Some Silt- Gray- Wet at 11 Feet (SP-SM)	S7	12	<1		
15		END OF BORING AT 15 FEET					
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 9.5 TO 14.5 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: 11'

BACKFILL METHOD: SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY  
PROJECT LOCATION: SOUTHFIELD, MICHIGAN  
CLIENT:

A/E: BORING SB7  
BY: SS START: 05/10/2011 END: 05/10/2011  
PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt	S1	15	<1		
		Gravelly Medium to Coarse Sand- Brown (GP-SP/Fill)					
		Sand with Trace Gravel- Trace Organics- Brown (SP/Fill)	S2	15	<1		
5			S3	18	<1		
		Fine to Medium Sand- Brown- Moist to 11 Feet then Wet (SP)	S4	18	<1		
			S5	24	<1		
			S6	24	<1		
10			S7	24	<1		
	Fine Sand- Trace to Some Silt- Wet (SP- SM)	S8	12	<1			
15		END OF BORING AT 15 FEET					
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 10 TO 15 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
☼ GROUNDWATER ENCOUNTERED DURING DRILLING ☼ GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING: 11'

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

A/E:

BORING SB8

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

BY: SS

START: 05/10/2011

END: 05/10/2011

CLIENT:

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Sandy Clay with Trace Asphalt Fragments- Brown- Moist (CL/Fill)	S1	16	<1		
		Clayey Fine Sand- Trace Gravel- Brown- Moist (SC/Fill)					
			S2	16	<1		
5		Fine to Medium Sand- Light Brown- Moist (SP)	S3	20	<1		
			S4	20	<1		
10		Fine to Medium Sand with Trace to Some Silt- Gray and Brown- Wet (SP-SM)	S5	24	<1		
			S6	24	<1		
		Fine Sand with Trace to Some Silt- gray- Wet (SP-SM)	S7	24	<1		
15		END OF BORING AT 15 FEET	S8	12	<1		
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 8.5 TO 13.5 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING: 8.5'

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS



# soil and materials engineers, inc.

**PROJECT NAME:** 26500 NORTHWESTERN HWY

**A/E:**

**BORING SB9**

**PROJECT LOCATION:** SOUTHFIELD, MICHIGAN

**BY:** SS

**START:** 05/10/2011

**END:** 05/10/2011

**CLIENT:**

**PROJECT NUMBER:** PE54232D-06 **SHEET:** 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Fine to Medium Sand- Trace Gravel- Trace Brick Fragments- Trace Clay- Brown (SP/Fill)	S1	18	<1		
			S2	18	<1		
5			S3	24	<1		
		Fine Sand with Trace to Some Silt- Brown- Moist (SP-SM)	S4	24	<1		
			S5	24	<1		
10			S6	24	<1		
		Fine Sand with Trace to Some Silt- Brown- Wet (SP-SM)	S7	24	<1		
15		END OF BORING AT 15 FEET	S8	12	<1		
20							
25							
30							
35							
<b>WATER LEVEL OBSERVATIONS</b> GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING			<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 10 TO 15 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				

**DRILLER:** SME

**WATER LEVEL DURING DRILLING:** 11'

**DRILL METHOD:** DIRECT PUSH

**BACKFILL METHOD:** SOIL CUTTINGS



# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY

A/E:

BORING SB10

PROJECT LOCATION: SOUTHFIELD, MICHIGAN

BY: SS

START: 05/10/2011

END: 05/10/2011

CLIENT:

PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0	GROUND SURFACE ELEVATION= NOT SURVEYED						
0	Asphalt						
	Clayey Fine Sand- Trace Gravel- Brown- Moist (SC/Fill)		S1	16	<1		
			S2	16	<1		
5			S3	24	<1		
	Fine Sand- Light Brown- Moist (SP)		S4	24	<1		
			S5	24	<1		
10			S6	24	<1		
	Fine Sand- Light Brown- Wet (SP)		S7	24	<1		
15			S8	24	<1		
	Fine Sand- Gray- Wet (SP)						
	END OF BORING AT 16 FEET						
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. A TEMPORARY WELL SCREEN WAS INSTALLED FROM 10 TO 15 FEET BELOW GRADE DURING DRILLING. 3. NO ODORS NOTED AND NO STAINING OBSERVED.				
GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING: 11.5'

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS





# soil and materials engineers, inc.

PROJECT NAME: 26500 NORTHWESTERN HWY  
PROJECT LOCATION: SOUTHFIELD, MICHIGAN  
CLIENT:

A/E: BORING SB11  
BY: SS START: 05/10/2011 END: 05/10/2011  
PROJECT NUMBER: PE54232D-06 SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	SAMPLE RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	FIELD OBSERVATIONS
0		GROUND SURFACE ELEVATION= NOT SURVEYED					
		Asphalt					
		Gravelly Medium to Coarse Sand- Brown (GP-SP/Fill)	S1	16	<1		
		Fine to Medium Sand- Trace Clay- Brown- Moist (SP/Fill)					
		Medium Sand- Trace Clay- Trace Gravel- Brown- Moist (SP/Fill)	S2	16	<1		
		Fine to Medium Sand- Trace Clay- Light Brown (SW/Fill)					
5			S3	20	<1		
			S4	20	<1		
		Fine Sand- Light Brown- Moist (SP)	S5	20	<1		
10			S6	20	<1		
			S7	24	<1		
		Fine Sand- Brown and Gray- Wet (SP)	S8	12	<1		
15		END OF BORING AT 15 FEET					
20							
25							
30							
35							
WATER LEVEL OBSERVATIONS			Notes: 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. NO ODORS NOTED AND NO STAINING OBSERVED.				
GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING							

DRILLER: SME

WATER LEVEL DURING DRILLING: 12'

DRILL METHOD: DIRECT PUSH

BACKFILL METHOD: SOIL CUTTINGS

## **APPENDIX B**

### **LABORATORY CHEMICAL ANALYSIS REPORTS**

May 19, 2011

Case Narrative

Customer: SME

Project Identification: 26500 Northwestern Highway/PE54232D-06

Fibertec Project Number: 44476

Sample Collection/ Receipt

The following samples were collected on May 10, 2011 and received by Fibertec on May 11, 2011.

10 Soil Samples (including a blank, MS/MSD and 2 samples on hold)

12 Water Samples (including blanks, MS/MSD and 3 samples on hold)

All samples were received on ice and in good condition.

Analysis

Analyses were conducted in accordance with chain of custody and within hold times.

All applicable quality assurance / quality control parameters were within acceptance limits unless otherwise noted.

Metals

Samples 44476-005 (Dup 1), 44476-006 (SB8-S1), 44476-007 (SB8-S1 MS) and 44476-008 (SB8-S1 MSD) have estimated results for zinc. Zinc was found in the blank, results may be biased high.

Pesticides

Sample 44476-005 (Dup 1) and 44476-006 (SB8-S1) have estimated results for 4,4-DDE and chlordane, high continuing calibration verification. Sample 44476-003 (SB6-S1) has estimated results for 4,4-DDE, 4,4-DDT and chlordane, high continuing calibration verification. Samples 44476-007 (SB8-S1 MS) and 44476-008 (SB8-S1 MSD) have estimated results for aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, heptachlor epoxide and endosulfan I, high continuing calibration verification. Samples 44476-016 (SB8-GW MS) and 44476-017 (SB8-GW MSD) have estimated results for aldrin, alpha-BHC, gamma-BHC, delta-BHC, and heptachlor epoxide, high continuing calibration verification. All of these results may be biased high.

Herbicides

Samples 44476-016 (SB8-GW MS) and 44476-017 (SB8-GW MSD) have estimated results for 2,4-D and 2,4,5-TP, high continuing calibration verification. Results may be biased high.

Volatiles

Samples 44476-001 (SB4-S4), 44476-003 (SB6-S1), 44476-004 (SB7-S1) and 44476-005 (DUP 1) have estimated results for bromomethane, low continuing calibration verification. Results may be biased low. All water samples have estimated results for chloromethane, low continuing calibration verification and 1,1,2-trichloroethane, low laboratory control sample. Results may be biased low.

The following were reported with elevated reporting limits

<u>Laboratory Number</u>	<u>Sample ID</u>	<u>Analysis</u>	<u>Reason for elevated RL</u>
44476-007	SB8-S1 MS	Pesticides	Sample Matrix
44476-008	SB8-S1 MSD	Pesticides	Sample Matrix
44476-016	SB8-GW MS	Pesticides	Sample Matrix
44476-017	SB8-GW MSD	Pesticides	Sample Matrix

Sample data has been reviewed, and reported results remain valid.

  
Authorized Signature

  
Date

# Fibertec

environmental services

**Analytical Laboratory**  
 1914 Holloway Drive  
 Holt, MI 48842  
 Phone: 517 699 0345  
 Fax: 517 699 0388  
 email: lab@fibertec.us

**Industrial Hygiene Services, Inc.**  
 1914 Holloway Drive  
 Holt, MI 48842  
 Phone: 517 699 0345  
 Fax: 517 699 0382  
 email: asbestos@fibertec.us

**Geoprobe**  
 11766 E. Grand River  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #  
**108227**  
 PAGE \_\_\_\_ of \_\_\_\_

Client Name: <b>City of Southfield</b>				Industrial Hygiene Services, Inc.				Geoprobe					
Contact Person: <b>Deb Osich</b>				1914 Holloway Drive Holt, MI 48842 Phone: 517 699 0345 Fax: 517 699 0382 email: asbestos@fibertec.us				11766 E. Grand River Brighton, MI 48116 Phone: 810 220 3300 Fax: 810 220 3311					
Project Name/Number: <b>26500 Northwestern Highway SNE Project # PE54232D-cb</b>													
Purchase Order #				MATRIX (SEE RIGHT CORNER FOR CODE)									
Lab Sample #	Date	Time	Client Sample #	Client Sample Description	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS				Turnaround	Matrix Code	
51014	11:20		1	SB4-S4	5	1 Y	VOC	8260	10 m/ Metals	6020	24 hour RUSH (surcharge applies)	S Soil	GW Ground Water
	11:20		2	SB4-S4	1	2 N	PAH	8270	Co, Cr, Pb	6020	48 hour RUSH (surcharge applies)	W Water	SW Surface Water
	12:10		3	SB5-S5	1	1 Y	As, Cu, Pb	6020	Hex Cr	6020	72 hour RUSH (surcharge applies)	A Air	WW Waste Water
	12:10		4	SB5-S5	1	2 N	Herbicides	8151	Pesticides	8081	Standard (5-7 bus days)	O Oil	X Other: Specify
	10:10		5	SB6-S1	1	1 Y	CN	9014	SD <sub>4</sub> <sup>2-</sup>	9056	Other: Specify	P Wipe	
	10:10		6	SB6-S1	1	2 N							
	9:30		7	SB7-S1	1	1 Y							
	9:30		8	SB7-S1	1	2 N							
			9	Dup 1	1	1 Y							
			10	Dup 1	1	2 N							
Comments:													
Relinquished By: <b>Shen Bao SNE</b>				Date/Time: <b>5/10/06</b>				Received By: <b>SNE frg-c</b>					
Relinquished By: <b>SNE frg-c</b>				Date/Time:				Received By:					
Relinquished By:				Date/Time:				Received By Laboratory:					
LAB USE ONLY:													
Fibertec project number:													
Laboratory tracking:													
Temperature at Receipt:													

TERMS & CONDITIONS ON BACK



# Fibertec

environmental  
services

1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0388  
email: lab@fibertec.us

Analytical laboratory  
8660 S. Mockingbird Trail  
Cadillac, MI 49601  
Phone: 231 775 5368  
Fax: 231 775 8584

Industrial Hygiene Services, Inc.  
1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0382  
email: asbestos@fibertec.us

Chain of Custody #  
**108225**  
PAGE \_\_\_\_ of \_\_\_\_

Client Name: <b>City of Southfield</b>		Contact Person: <b>Dan Osach</b>		Project Name/Number: <b>26500 Northwestern Highway / SMI Project # PE51232 D-66</b>	
Purchase Order #		Client Sample Descriptor		MATRIX (SEE RIGHT CORNER FOR CODE)	
Lab Sample #	Date	Time	Client Sample #	# OF CONTAINERS	PRESERVED (Y/N)
510/11	3:40	11	SB-8-S1	1	Y
	3:46	12	SB8-S1	1	Y
	3:40	13	ms-SB8-S1	1	Y
	3:40	14	ms-SB8-S1	1	Y
	3:40	15	ms0-SB8-S1	1	Y
	3:40	16	B150-SB8-S1	1	Y
	8:10	17	SB9-S1	1	Y
	8:10	18	SB9-S1	1	Y
		19	Trig Blank	1	Y
Comments:					
Relinquished By: <b>Sharon Siro</b>		Date/Time: <b>5/10/06 6:00</b>		Received By: <b>SMI Frisbie</b>	
Relinquished By: <b>SMI Frisbie</b>		Date/Time:		Received By:	
Relinquished By:		Date/Time:		Received By:	
LAB USE ONLY:					
Fibertec project number:					
Laboratory tracking:					
Temperature at Receipt:					

TERMS & CONDITIONS ON BACK

COC Revision: April, 2006

Turnaround		Matrix Code	
24 hour RUSH (turbidimetry applied)	S Soil	GW Ground water	
48 hour RUSH (turbidimetry applied)	W Water	SW Surface water	
72 hour RUSH (turbidimetry applied)	A Air	WW Waste water	
Standard (5-7 bus. days)	O Oil	Other Specify	
Other Specify	P Wipe		



Analytical Laboratory  
1914 Holloway Drive  
Holt, MI 48942  
Phone: 517 699 0345  
Fax: 517 699 0388  
email: lab@fibertec.us

Industrial Hygiene Services, Inc.  
1914 Holloway Drive  
Holt, MI 48942  
Phone: 517 699 0345  
Fax: 517 699 0382  
email: asbestos@fibertec.us

Geoprobe  
11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #  
**1082224**  
PAGE \_\_\_\_ of \_\_\_\_

Client Name: City of Southfield		Contact Person: Deb Osuch		Project Name/Number: 36500 Northwestern Highway SME Project # PE59232 D-06	
Purchase Order#		Client Sample Descriptor		MATRIX (SEE RIGHT CORNER FOR CODE)	
Lab Sample #	Date	Time	Client Sample #	# OF CONTAINERS	PRESERVED (Y/N)
519411	11:30	20	SB4-GW	5W3Y	
	2:50	21	SB5-GW	4Y	X
	10:20	22	SB6-GW	8Y	X
	11:00	23	SB7-GW	8Y	X
	4:00	24	SB8-GW	9Y	X
		25	MS-SB8-GW	9Y	X
		26	MS-SB8-GW	9Y	X
		27	SB9-GW	4Y	X
			Dup 1	4Y	X
Comments:					
Relinquished By: Shaun Brown		SME		Date/Time: 5/19/11 6:00	Received By: SME fndsc
Relinquished By: SME fndsc				Date/Time:	Received By:
Relinquished By:				Date/Time:	Received By Laboratory:
LAB USE ONLY: Fibertec project number: Laboratory Tracking: Temperature at Receipt:					

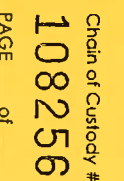
24 hour RUSH (surcharge applies)	S Soil	GW Ground water
48 hour RUSH (surcharge applies)	W Water	SW Surface water
72 hour RUSH (surcharge applies)	A Air	WW Waste water
Standard (57 bus. days)	COil	X Other: Specify
Other: Specify	P Wipe	

Remarks: Ambers not preserved

Collection times from 4:00-4:30

TERMS & CONDITIONS ON BACK





PAGE of

# Fibertec Environmental Services

**Analytical Laboratory**  
 1914 Holloway Drive  
 Holt, MI 48842  
 Phone: 517 699 0345  
 Fax: 517 699 0388  
 email: lab@fibertec.us

**Industrial Hygiene Services, Inc.**  
 1914 Holloway Drive  
 Holt, MI 48842  
 Phone: 517 699 0345  
 Fax: 517 699 0382  
 email: asbestos@fibertec.us

**Geoprobe**  
 11766 E. Grand River  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #  
**108227**  
 PAGE 1 of 1

Client Name: City of Southfield SNE - Plymouth

Contact Person: Deb Osch

Project Name/ Number: 26500 Northwestern Highway  
SNE Project # PE59R32D-06

Purchase Order #

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX	# OF CONTAINERS	PRESERVED	VOC	PAH	10 m	cd, m	As, C	Hex	Herb	Pestic	CN	SD	Remarks:
5/10/11	5/10/11	11:20	1	SB4-54		5	1 Y											
		11:20	2	SB4-54		1	2 N											
		12:10	3	SB5-55		1	1 Y											
		12:10	4	SB5-55		1	2 N											
		10:10	5	SB6-51		1	1 Y											
		10:10	6	SB6-51		1	2 N											
		9:30	7	SB7-51		1	1 Y											
		9:30	8	SB7-51		1	2 N											
			9	Dup 1		1	1 Y											
			10	Dup 1		1	2 N											

Comments:

Relinquished By: Shen Bao SNE

Date/Time: 5/10/11 6:00

Received By: SNE Friday

Relinquished By: SNE Friday

Date/Time: 5/11/11 0849

Received By: SNE Friday

Relinquished By: SNE Friday

Date/Time: 5/11/11 1057

Received By: SNE Friday

LAB USE ONLY:

Fibertec project number:  
 Laboratory tracking:  
 Temperature at Receipt:

**ICE**

TERMS & CONDITIONS ON BACK

COC Revision: April, 2006



Client Name:						<del>City of Southfield</del> SME-Plymouth					
Contact Person:						Deb Osuch					
Project Name/ Number:						2650 Northwestern Highway SME Project # PE 57232 D-66					
Purchase Order# _____											
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor							
	5/10/11	3:40	11	SB-8-S1							
		3:46	12	SB8 - S1							
		3:40	13	MS - SB8-S1							
		3:40	14	MS - SB8-S1							
		3:40	15	MSD - SB8-S1							
		3:40	16	P150 - SB8-S1							
		8:10	17	SB9-S1							
		8:10	18	SB9-S1							
			19	Trip Blank							
				MATRIX (SEE RIGHT CORNER FOR CODE)							
				# OF CONTAINERS							
				PRESERVED (Y/N)							
				VOC 8260							
				PAH 8270							
				10 MI metals 6020							
				Cd, Cr, Pb 6020							
				As, Cu, Pb 6020							
				Hex Cr 6020							
				Herbicides 8151							
				Pesticides 8081							
				CN 9014							
				SD <sub>4</sub> <sup>2-</sup> 9056							
				<div style="display: flex; justify-content: space-between;"> <div>Tumaround</div> <div> <div>24 hour RUSH (surcharge applies)</div> <div>48 hour RUSH (surcharge applies)</div> <div>72 hour RUSH (surcharge applies)</div> <div>Standard (5-7 bus days)</div> <div>Other: Specify _____</div> </div> </div>							
				Remarks: _____							
				<div style="display: flex; justify-content: space-between;"> <div>MATRIX Code</div> <div> <div>S Soil</div> <div>W Water</div> <div>A Air</div> <div>O Oil</div> <div>P Wipe</div> </div> <div> <div>GW Ground Water</div> <div>SW Surface Water</div> <div>WW Waste Water</div> <div>X Other: Specify _____</div> </div> </div>							

Relinquished By:	<i>Shun Sone</i>	SMF	Date/Time	5/10/11 6:44	Received By:	<i>SMF frdsr</i>
Relinquished By:	<i>SMF frdsr</i>	<i>SMF frdsr</i>	Date/Time	5/11/11 08:49	Received By:	<i>SMF frdsr</i>
Relinquished By:	<i>SMF frdsr</i>	<i>SMF frdsr</i>	Date/Time	5/11/11 10:57	Received By:	<i>SMF frdsr</i>
LAB USE ONLY:						
Fibertec project number:						
Laboratory Tracking:						
Temperature at Receipt:						

3801

COC Revision: April, 2006

TERMS &amp; CONDITIONS ON BACK

# Fibertec environmental services

Analytical Laboratory  
1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0388  
email: lab@fibertec.us

Industrial Hygiene Services, Inc.  
1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0382  
email: asbestos@fibertec.us

Geoprobe  
11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #  
**108224**  
PAGE 3 of 4

Client Name: *City of Southfield SNE - Plymouth*

Contact Person: *Deb Osuch*

Project Name/Number: *26500 Northwestern Highway*

*SNE Project # PE5Y232D-06*

Purchase Order #

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor
--------------	------	------	-----------------	--------------------------

51111	11:30	20	SB4-GW	6W3Y
51111	2:50	21	SB5-GW	4Y
51111	10:30	22	SB6-GW	8Y
51111	11:00	23	SB7-GW	8Y
51111	4:00	24	SB8-GW	9W
51111		25	MS-SB8-GW	4Y
51111		26	MS-SB8-GW	4Y
51111		27	SB9-GW	4Y
			Dup 1	4Y

Comments:

Relinquished By: *Shawn Snow*

Date/Time: *5/19/11 6:00*

Received By: *SNE to ASG*

Relinquished By: *SNE to ASG*

Date/Time: *5/11/11 08:44*

Received By: *SNE to ASG*

Relinquished By: *SNE to ASG*

Date/Time: *5/11/11 08:44*

Received By: *SNE to ASG*

LAB USE ONLY:

Fibertec project number:

Laboratory tracking:

Temperature at Receipt:

MATRIX (SEE RIGHT CORNER FOR CODE)  
# OF CONTAINERS  
PRESERVED (Y/N)

VOL	8260
PAH	8270
10 MI Metals	6020
Cd, Cr, Pb	6020
As, Cu, Pb	6020
Herbicides	8151
Pesticides	8081
CN	9014
SO <sub>4</sub> <sup>2-</sup>	9056
Hex Cr	6020

Turnaround  
24 hour RUSH (surcharge applies)  
48 hour RUSH (surcharge applies)  
72 hour RUSH (surcharge applies)  
Standard (5-7 bus. days)  
Other: Specify

Matrix Code	Matrix Code
S Soil	GW Ground Water
W Water	SW Surface Water
A Air	WW Waste Water
O Oil	Other: Specify
P Wipe	

Remarks:

*Ambers not preserved*

*collection times from 4:00-4:30*

ICE 4

TERMS & CONDITIONS ON BACK

# Fibertec environmental services

**Analytical Laboratory**  
 1914 Holloway Drive 8660 S. Mackinaw Trail  
 Holt, MI 48842 Cadillac, MI 49601  
 Phone: 517 699 0345 Phone: 231 775 8368  
 Fax: 517 699 0388 Fax: 231 775 8584  
 email: lab@fibertec.us

**Industrial Hygiene Services, Inc.**  
 1914 Holloway Drive  
 Holt, MI 48842  
 Phone: 517 699 0345  
 Fax: 517 699 0382  
 email: asbestos@fibertec.us

**Geoprobe**  
 11766 E. Grand River  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #  
**108256**  
 PAGE 4 of 4

AS

Client Name: City of Southfield SNE - Plymouth

Contact Person: Bob Osuch

Project Name/Number: 26500 Northwestern Highway

SNE Proj #: PE34232 D-06

Purchase Order #

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor
--------------	------	------	-----------------	--------------------------

5/10/11	4:15	28		Field Blank
	4:30	29		Equipment Blank
		30		TRP Blank

MATRIX (SEE RIGHT CORNER FOR CODE)

# OF CONTAINERS

PRESERVED (Y/N)

VOL 8260  
 PTH 8270  
 10 ml metals 6020

## PARAMETERS

Turnaround				Matrix Code			
24 hour RUSH (surcharge applies)				S Soil	GM Ground water		
48 hour RUSH (surcharge applies)				W Water	SW Surface water		
72 hour RUSH (surcharge applies)				A Air	WW Waste water		
Standard (5-7 bus. days)				O Oil			
Other: Specify				P Wipe			

Remarks:

VOL vials received, Amers not received

Comments:

Relinquished By: Shum Bro SNE Date/Time: 5/10/11 6:00 Received By: SNE fudge

Relinquished By: SNE fudge Date/Time: 5/11/11 08:49 Received By: SNE fudge

Relinquished By: [Signature] Date/Time: 5/11/11 09:51 Received By: [Signature]

LAB USE ONLY: [Signature]

Fibertec project number:  
 Laboratory Tracking:  
 Temperature at Receipt:

TERMS & CONDITIONS ON BACK

COC Revision: April, 2006

ICE 4

108256

40 #







Thursday, May 19, 2011

Fibertec Project Number: 44476  
Project Identification: 26500 Northwestern Highway /PE54232D-06  
Submittal Date: 05/11/2011

Ms. Deb Osuch  
Soil and Materials Engineers, Inc. - Shelby Twp.  
13019 Pauline Drive  
Shelby Township, MI 48315

Dear Ms. Osuch,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB4-S4</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>1</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:20</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-001A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>10</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44476-001		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/13/11	V311E13A	05/13/11	V311E13A
2. Acrylonitrile	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
3. Benzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
4. Bromobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
5. Bromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
7. Bromoform	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
8. Bromomethane	U	J,V-	µg/kg	200	1.0	05/13/11	V311E13A	05/13/11	V311E13A
9. 2-Butanone	U		µg/kg	750	1.0	05/13/11	V311E13A	05/13/11	V311E13A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
15. Chlorobenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
16. Chloroethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
17. Chloroform	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
18. Chloromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
20. Dibromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/13/11	V311E13A	05/13/11	V311E13A
22. Dibromomethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
35. Ethylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
36. Ethylene Dibromide	U		µg/kg	22	1.0	05/13/11	V311E13A	05/13/11	V311E13A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB4-S4</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>1</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:20</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-001		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
37. 2-Hexanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
39. Methyl Iodide	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
40. Methylene Chloride	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
42. MTBE	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
43. Naphthalene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
45. Styrene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
49. Toluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
53. Trichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/13/11	V311E13A	05/13/11	V311E13A
60. Xylenes	U		µg/kg	150	1.0	05/13/11	V311E13A	05/13/11	V311E13A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-001A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
2. Acenaphthylene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
3. Anthracene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
9. Chrysene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
11. Fluoranthene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
12. Fluorene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB4-S4</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>1</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:20</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)				Aliquot ID: 44476-001A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
15. Phenanthrene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A
16. Pyrene	U		µg/kg	330	1.0	05/13/11	PS11E13B	05/13/11	S711E13A



Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB6-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>3</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>10:10</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>11</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>2400</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
2. Copper	<b>5300</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
3. Lead	<b>8000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
2. alpha-BHC (NN)	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
3. beta-BHC (NN)	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
4. delta-BHC	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
5. gamma-BHC (NN)	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
6. Chlordane (NN)	<b>62</b> J,V+		µg/kg	28	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
7. 4,4'-DDD	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
8. 4,4'-DDE	<b>45</b> J,V+		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
9. 4,4'-DDT	<b>24</b> J,V+		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
10. Dieldrin	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
11. Endosulfan I	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
12. Endosulfan II	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
13. Endosulfan Sulfate	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
14. Endrin	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
15. Endrin Aldehyde	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
16. Heptachlor	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
17. Heptachlor Epoxide	U		µg/kg	23	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
18. Methoxychlor	U		µg/kg	56	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
19. Toxaphene (NN)	U		µg/kg	190	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B

Organochlorine Herbicides (EPA 3550C/EPA 8151A)				Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	230	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
2. Dalapon	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
3. 2,4-DB	U		µg/kg	230	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
4. Dicamba	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
5. Dichlorprop (NN)	U		µg/kg	230	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB6-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>3</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>10:10</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Organochlorine Herbicides (EPA 3550C/EPA 8151A)				Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
7. 2,4,5-T	U		µg/kg	230	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
8. 2,4,5-TP (NN)	U		µg/kg	230	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44476-003		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/13/11	V311E13A	05/13/11	V311E13A
2. Acrylonitrile	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
3. Benzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
4. Bromobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
5. Bromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
7. Bromoform	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
8. Bromomethane	U	J,V-	µg/kg	200	1.0	05/13/11	V311E13A	05/13/11	V311E13A
9. 2-Butanone	U		µg/kg	750	1.0	05/13/11	V311E13A	05/13/11	V311E13A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
15. Chlorobenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
16. Chloroethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
17. Chloroform	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
18. Chloromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
20. Dibromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/13/11	V311E13A	05/13/11	V311E13A
22. Dibromomethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
35. Ethylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB6-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>3</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>10:10</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-003		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
36. Ethylene Dibromide	U		µg/kg	23	1.0	05/13/11	V311E13A	05/13/11	V311E13A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
39. Methyl Iodide	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
40. Methylene Chloride	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
42. MTBE	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
43. Naphthalene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
45. Styrene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
49. Toluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
53. Trichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/13/11	V311E13A	05/13/11	V311E13A
60. Xylenes	U		µg/kg	150	1.0	05/13/11	V311E13A	05/13/11	V311E13A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
2. Acenaphthylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
3. Anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
9. Chrysene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
11. Fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
12. Fluorene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB6-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>3</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>10:10</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
15. Phenanthrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
16. Pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: DMS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Cyanide	U		µg/kg	200	1.0	05/13/11	PW11E13B	05/13/11	WP11E13A	

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44476-003A		Matrix: Soil/Solid		Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Sulfate	U		µg/kg	10000	1.0	05/12/11 18:39	PW11E12F	05/13/11 06:42	WC11E12A	

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB7-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>09:30</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>7.3</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>1900</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
2. Copper	<b>5100</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
3. Lead	<b>9500</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
2. alpha-BHC (NN)	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
3. beta-BHC (NN)	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
4. delta-BHC	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
5. gamma-BHC (NN)	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
6. Chlordane (NN)	U		µg/kg	27	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
7. 4,4'-DDD	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
8. 4,4'-DDE	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
9. 4,4'-DDT	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
10. Dieldrin	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
11. Endosulfan I	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
12. Endosulfan II	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
13. Endosulfan Sulfate	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
14. Endrin	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
15. Endrin Aldehyde	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
16. Heptachlor	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
17. Heptachlor Epoxide	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
18. Methoxychlor	U		µg/kg	54	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
19. Toxaphene (NN)	U		µg/kg	180	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B

Organochlorine Herbicides (EPA 3550C/EPA 8151A)				Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
2. Dalapon	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
3. 2,4-DB	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
4. Dicamba	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
5. Dichlorprop (NN)	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB7-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>09:30</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

<b>Organochlorine Herbicides (EPA 3550C/EPA 8151A)</b>				<b>Aliquot ID: 44476-004A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: TMC</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
7. 2,4,5-T	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
8. 2,4,5-TP (NN)	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

<b>Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)</b>				<b>Aliquot ID: 44476-004</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: JAS</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/13/11	V311E13A	05/13/11	V311E13A
2. Acrylonitrile	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
3. Benzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
4. Bromobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
5. Bromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
7. Bromoform	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
8. Bromomethane	U	J,V-	µg/kg	200	1.0	05/13/11	V311E13A	05/13/11	V311E13A
9. 2-Butanone	U		µg/kg	750	1.0	05/13/11	V311E13A	05/13/11	V311E13A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
15. Chlorobenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
16. Chloroethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
17. Chloroform	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
18. Chloromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
20. Dibromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/13/11	V311E13A	05/13/11	V311E13A
22. Dibromomethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
35. Ethylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB7-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>09:30</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-004		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
36. Ethylene Dibromide	U		µg/kg	22	1.0	05/13/11	V311E13A	05/13/11	V311E13A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
39. Methyl Iodide	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
40. Methylene Chloride	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
42. MTBE	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
43. Naphthalene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
45. Styrene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
49. Toluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
53. Trichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/13/11	V311E13A	05/13/11	V311E13A
60. Xylenes	U		µg/kg	150	1.0	05/13/11	V311E13A	05/13/11	V311E13A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
2. Acenaphthylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
3. Anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
9. Chrysene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
11. Fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
12. Fluorene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB7-S1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>09:30</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
15. Phenanthrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
16. Pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: DMS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Cyanide	U		µg/kg	200	1.0	05/13/11	PW11E13B	05/13/11	WP11E13A	

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44476-004A		Matrix: Soil/Solid		Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Sulfate	16000		µg/kg	10000	1.0	05/12/11 18:39	PW11E12F	05/13/11 07:00	WC11E12A	

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>5</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-005A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>7.6</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44476-005A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>2300</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
2. Barium	<b>5900</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
3. Cadmium	<b>56</b>		µg/kg	50	20	05/16/11	PT11E16F	05/16/11	T211E16A
4. Chromium	<b>3400</b>		µg/kg	500	20	05/16/11	PT11E16F	05/16/11	T211E16A
5. Copper	<b>4500</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
6. Lead	<b>2300</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
7. Selenium	U		µg/kg	200	20	05/16/11	PT11E16F	05/16/11	T211E16A
8. Silver	U		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
9. Zinc	<b>14000</b>	B	µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44476-005A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2700	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44476-005A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/12/11	PM11E12C	05/13/11	M411E13C

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-005A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
2. alpha-BHC (NN)	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
3. beta-BHC (NN)	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
4. delta-BHC	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
5. gamma-BHC (NN)	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
6. Chlordane (NN)	<b>100</b>	J,V+	µg/kg	27	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
7. 4,4'-DDD	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
8. 4,4'-DDE	<b>94</b>	J,V+	µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
9. 4,4'-DDT	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
10. Dieldrin	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
11. Endosulfan I	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
12. Endosulfan II	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
13. Endosulfan Sulfate	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>5</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

<b>Organochlorine Pesticides (EPA 3550C/EPA 8081B)</b>				<b>Aliquot ID: 44476-005A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: GAN</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Endrin	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
15. Endrin Aldehyde	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
16. Heptachlor	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
17. Heptachlor Epoxide	U		µg/kg	22	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
18. Methoxychlor	U		µg/kg	54	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
19. Toxaphene (NN)	U		µg/kg	180	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B

<b>Organochlorine Herbicides (EPA 3550C/EPA 8151A)</b>				<b>Aliquot ID: 44476-005A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: TMC</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
2. Dalapon	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
3. 2,4-DB	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
4. Dicamba	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
5. Dichlorprop (NN)	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
7. 2,4,5-T	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
8. 2,4,5-TP (NN)	U		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

<b>Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)</b>				<b>Aliquot ID: 44476-005</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: JAS</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/13/11	V311E13A	05/13/11	V311E13A
2. Acrylonitrile	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
3. Benzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
4. Bromobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
5. Bromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
7. Bromoform	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
8. Bromomethane	U	J,V-	µg/kg	200	1.0	05/13/11	V311E13A	05/13/11	V311E13A
9. 2-Butanone	U		µg/kg	750	1.0	05/13/11	V311E13A	05/13/11	V311E13A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
15. Chlorobenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
16. Chloroethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
17. Chloroform	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
18. Chloromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>5</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-005		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
20. Dibromochloromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/13/11	V311E13A	05/13/11	V311E13A
22. Dibromomethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
35. Ethylbenzene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
36. Ethylene Dibromide	U		µg/kg	22	1.0	05/13/11	V311E13A	05/13/11	V311E13A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
39. Methyl Iodide	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
40. Methylene Chloride	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/13/11	V311E13A	05/13/11	V311E13A
42. MTBE	U		µg/kg	250	1.0	05/13/11	V311E13A	05/13/11	V311E13A
43. Naphthalene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
45. Styrene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
49. Toluene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/13/11	V311E13A	05/13/11	V311E13A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
53. Trichloroethene	U		µg/kg	50	1.0	05/13/11	V311E13A	05/13/11	V311E13A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/13/11	V311E13A	05/13/11	V311E13A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/13/11	V311E13A	05/13/11	V311E13A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108227</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>5</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-005		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
60. Xylenes	U		µg/kg	150	1.0	05/13/11	V311E13A	05/13/11	V311E13A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-005A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
2. Acenaphthylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
3. Anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
9. Chrysene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
11. Fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
12. Fluorene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
15. Phenanthrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	
16. Pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A	

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44476-005A		Matrix: Soil/Solid	Analyst: DMS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1.Cyanide	U		µg/kg	200	1.0	05/13/11	PW11E13B	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44476-005A		Matrix: Soil/Solid	Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	U		µg/kg	10000	1.0	05/12/11 18:39	PW11E12F	05/13/11 07:17	WC11E12A

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>6.3</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>2200</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
2. Barium	<b>6100</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
3. Cadmium	<b>50</b>		µg/kg	50	20	05/16/11	PT11E16F	05/16/11	T211E16A
4. Chromium	<b>4400</b>		µg/kg	500	20	05/16/11	PT11E16F	05/16/11	T211E16A
5. Copper	<b>4300</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
6. Lead	<b>2800</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
7. Selenium	<b>230</b>		µg/kg	200	20	05/16/11	PT11E16F	05/16/11	T211E16A
8. Silver	U		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
9. Zinc	<b>13000</b>	B	µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2700	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/12/11	PM11E12C	05/13/11	M411E13C

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
2. alpha-BHC (NN)	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
3. beta-BHC (NN)	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
4. delta-BHC	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
5. gamma-BHC (NN)	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
6. Chlordane (NN)	<b>120</b>	J,V+	µg/kg	27	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
7. 4,4'-DDD	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
8. 4,4'-DDE	<b>77</b>	J,V+	µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
9. 4,4'-DDT	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
10. Dieldrin	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
11. Endosulfan I	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
12. Endosulfan II	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
13. Endosulfan Sulfate	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Endrin	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
15. Endrin Aldehyde	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
16. Heptachlor	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
17. Heptachlor Epoxide	U		µg/kg	21	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
18. Methoxychlor	U		µg/kg	53	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B
19. Toxaphene (NN)	U		µg/kg	180	1.0	05/13/11	PS11E13C	05/17/11	SA11E17B

Organochlorine Herbicides (EPA 3550C/EPA 8151A)				Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
2. Dalapon	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
3. 2,4-DB	U		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
4. Dicamba	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
5. Dichlorprop (NN)	U		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
7. 2,4,5-T	U		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
8. 2,4,5-TP (NN)	U		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44476-006		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/16/11	V911E16A	05/16/11	V911E16A
2. Acrylonitrile	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
3. Benzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
4. Bromobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
5. Bromochloromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
7. Bromoform	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
8. Bromomethane	U		µg/kg	200	1.0	05/16/11	V911E16A	05/16/11	V911E16A
9. 2-Butanone	U		µg/kg	750	1.0	05/16/11	V911E16A	05/16/11	V911E16A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
15. Chlorobenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
16. Chloroethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
17. Chloroform	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
18. Chloromethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-006		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
20. Dibromochloromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/16/11	V911E16A	05/16/11	V911E16A
22. Dibromomethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
35. Ethylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/16/11	V911E16A	05/16/11	V911E16A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
39. Methyl Iodide	U		µg/kg	110	1.0	05/16/11	V911E16A	05/16/11	V911E16A
40. Methylene Chloride	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
42. MTBE	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
43. Naphthalene	U		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
45. Styrene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
49. Toluene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
53. Trichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/16/11	V911E16A	05/16/11	V911E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-006		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
60. Xylenes	U		µg/kg	150	1.0	05/16/11	V911E16A	05/16/11	V911E16A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)				Aliquot ID: 44476-006A			Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
2. Acenaphthylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
3. Anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
9. Chrysene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
11. Fluoranthene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
12. Fluorene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
15. Phenanthrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
16. Pyrene (SIM)	U		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1.Cyanide	U		µg/kg	200	1.0	05/13/11	PW11E13B	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44476-006A		Matrix: Soil/Solid		Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1.Sulfate	U		µg/kg	10000	1.0	05/12/11 18:39	PW11E12F	05/13/11 08:09	WC11E12A	

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MS</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>7.0</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>13000</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
2. Barium	<b>58000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
3. Cadmium	<b>11000</b>		µg/kg	50	20	05/16/11	PT11E16F	05/16/11	T211E16A
4. Chromium	<b>25000</b>		µg/kg	500	20	05/16/11	PT11E16F	05/16/11	T211E16A
5. Copper	<b>25000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
6. Lead	<b>23000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
7. Selenium	<b>11000</b>		µg/kg	200	20	05/16/11	PT11E16F	05/16/11	T211E16A
8. Silver	<b>10000</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
9. Zinc	<b>64000</b>	B	µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	<b>35000</b>		µg/kg	2700	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	<b>210</b>		µg/kg	50	10	05/12/11	PM11E12C	05/13/11	M411E13C

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	<b>85</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
2. alpha-BHC (NN)	<b>85</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
3. beta-BHC (NN)	<b>88</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
4. delta-BHC	<b>81</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
5. gamma-BHC (NN)	<b>86</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
6. 4,4'-DDE	<b>120</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
7. 4,4'-DDT	<b>78</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
8. Dieldrin	<b>77</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
9. Endosulfan I	<b>81</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
10. Endosulfan II	<b>76</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
11. Endosulfan Sulfate	<b>75</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
12. Endrin	<b>75</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
13. Heptachlor	<b>82</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MS</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

<b>Organochlorine Pesticides (EPA 3550C/EPA 8081B)</b>				<b>Aliquot ID: 44476-007A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: GAN</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Heptachlor Epoxide	<b>80</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
15. Methoxychlor	<b>280</b>		µg/kg	110	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B

<b>Organochlorine Herbicides (EPA 3550C/EPA 8151A)</b>				<b>Aliquot ID: 44476-007A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: TMC</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	<b>410</b>		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
2. 2,4,5-TP (NN)	<b>440</b>		µg/kg	220	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

<b>Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)</b>				<b>Aliquot ID: 44476-007</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: JAS</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	<b>6400</b>		µg/kg	1000	1.0	05/16/11	V911E16A	05/16/11	V911E16A
2. Acrylonitrile	<b>7000</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
3. Benzene	<b>5100</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
4. Bromobenzene	<b>5200</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
5. Bromochloromethane	<b>5700</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
6. Bromodichloromethane	<b>5800</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
7. Bromoform	<b>6000</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
8. Bromomethane	<b>3900</b>		µg/kg	200	1.0	05/16/11	V911E16A	05/16/11	V911E16A
9. 2-Butanone	<b>5700</b>		µg/kg	750	1.0	05/16/11	V911E16A	05/16/11	V911E16A
10. n-Butylbenzene	<b>5900</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
11. sec-Butylbenzene	<b>5700</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
12. tert-Butylbenzene	<b>5700</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
13. Carbon Disulfide	<b>4000</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
14. Carbon Tetrachloride	<b>5100</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
15. Chlorobenzene	<b>4700</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
16. Chloroethane	<b>4500</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
17. Chloroform	<b>5400</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
18. Chloromethane	<b>4900</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
19. 2-Chlorotoluene	<b>5200</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
20. Dibromochloromethane	<b>5700</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
21. 1,2-Dibromo-3-chloropropane (NN)	<b>6100</b>		µg/kg	11	1.0	05/16/11	V911E16A	05/16/11	V911E16A
22. Dibromomethane	<b>5300</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
23. 1,2-Dichlorobenzene	<b>5000</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
24. 1,3-Dichlorobenzene	<b>4900</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
25. 1,4-Dichlorobenzene	<b>4600</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
26. Dichlorodifluoromethane	<b>5700</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
27. 1,1-Dichloroethane	<b>5500</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
28. 1,2-Dichloroethane	<b>10000</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
29. 1,1-Dichloroethene	<b>5200</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MS</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-007		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
30. cis-1,2-Dichloroethene	6300		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
31. trans-1,2-Dichloroethene	4100		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
32. 1,2-Dichloropropane	5600		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
33. cis-1,3-Dichloropropene	6000		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
34. trans-1,3-Dichloropropene	6000		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
35. Ethylbenzene	5000		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
36. Ethylene Dibromide	10000		µg/kg	20	1.0	05/16/11	V911E16A	05/16/11	V911E16A
37. 2-Hexanone	6400		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
38. Isopropylbenzene	5400		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
39. Methyl Iodide	4300		µg/kg	110	1.0	05/16/11	V911E16A	05/16/11	V911E16A
40. Methylene Chloride	4800		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
41. 4-Methyl-2-pentanone	6300		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
42. MTBE	11000		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
43. Naphthalene	6300		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
44. n-Propylbenzene	5600		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
45. Styrene	5600		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
46. 1,1,1,2-Tetrachloroethane	5300		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
47. 1,1,2,2-Tetrachloroethane	5700		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
48. Tetrachloroethene	4700		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
49. Toluene	5200		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
50. 1,2,4-Trichlorobenzene	5500		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
51. 1,1,1-Trichloroethane	5200		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
52. 1,1,2-Trichloroethane	5200		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
53. Trichloroethene	5300		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
54. Trichlorofluoromethane	5400		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
55. 1,2,3-Trichloropropane	5500		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
56. 1,2,3-Trimethylbenzene (NN)	5200		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
57. 1,2,4-Trimethylbenzene	5500		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
58. 1,3,5-Trimethylbenzene	5500		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
59. Vinyl Chloride	5600		µg/kg	40	1.0	05/16/11	V911E16A	05/16/11	V911E16A
60. Xylenes	15000		µg/kg	150	1.0	05/16/11	V911E16A	05/16/11	V911E16A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	4900		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
2. Acenaphthylene (SIM)	4800		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
3. Anthracene (SIM)	4800		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
4. Benzo(a)anthracene (SIM)	4700		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
5. Benzo(a)pyrene (SIM)	5200		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
6. Benzo(b)fluoranthene (SIM)	5200		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MS</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
7. Benzo(ghi)perylene (SIM)	<b>5000</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
8. Benzo(k)fluoranthene (SIM)	<b>5200</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
9. Chrysene (SIM)	<b>4400</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
10. Dibenzo(a,h)anthracene (SIM)	<b>5200</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
11. Fluoranthene (SIM)	<b>5200</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
12. Fluorene (SIM)	<b>4900</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
13. Indeno(1,2,3-cd)pyrene (SIM)	<b>5000</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
14. 2-Methylnaphthalene (SIM)	<b>4100</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
15. Phenanthrene (SIM)	<b>5000</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
16. Pyrene (SIM)	<b>5100</b>		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	<b>3300</b>		µg/kg	200	1.0	05/13/11	PW11E13B	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44476-007A		Matrix: Soil/Solid		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	<b>230000</b>		µg/kg	10000	1.0	05/12/11 18:39	PW11E12F	05/13/11 08:26	WC11E12A



Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MSD</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>6.9</b>		%	0.1	1.0	05/13/11	MC110513	05/16/11	MC110513

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>12000</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
2. Barium	<b>55000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
3. Cadmium	<b>10000</b>		µg/kg	50	20	05/16/11	PT11E16F	05/16/11	T211E16A
4. Chromium	<b>24000</b>		µg/kg	500	20	05/16/11	PT11E16F	05/16/11	T211E16A
5. Copper	<b>23000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
6. Lead	<b>22000</b>		µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A
7. Selenium	<b>10000</b>		µg/kg	200	20	05/16/11	PT11E16F	05/16/11	T211E16A
8. Silver	<b>10000</b>		µg/kg	100	20	05/16/11	PT11E16F	05/16/11	T211E16A
9. Zinc	<b>60000</b>	B	µg/kg	1000	20	05/16/11	PT11E16F	05/16/11	T211E16A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	<b>37000</b>		µg/kg	2700	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	<b>200</b>		µg/kg	50	10	05/12/11	PM11E12C	05/13/11	M411E13C

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	<b>80</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
2. alpha-BHC (NN)	<b>80</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
3. beta-BHC (NN)	<b>84</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
4. delta-BHC	<b>77</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
5. gamma-BHC (NN)	<b>81</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
6. 4,4'-DDE	<b>100</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
7. 4,4'-DDT	<b>71</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
8. Dieldrin	<b>71</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
9. Endosulfan I	<b>74</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
10. Endosulfan II	<b>71</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
11. Endosulfan Sulfate	<b>68</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
12. Endrin	<b>70</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
13. Heptachlor	<b>77</b>		µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MSD</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

<b>Organochlorine Pesticides (EPA 3550C/EPA 8081B)</b>				<b>Aliquot ID: 44476-008A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: GAN</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Heptachlor Epoxide	<b>74</b>	J,V+	µg/kg	43	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B
15. Methoxychlor	<b>260</b>		µg/kg	110	2.0	05/13/11	PS11E13C	05/17/11	SA11E17B

<b>Organochlorine Herbicides (EPA 3550C/EPA 8151A)</b>				<b>Aliquot ID: 44476-008A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: TMC</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	<b>430</b>		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A
2. 2,4,5-TP (NN)	<b>460</b>		µg/kg	210	1.0	05/13/11	PS11E13D	05/16/11	SC11E16A

<b>Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)</b>				<b>Aliquot ID: 44476-008</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: JAS</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	<b>6200</b>		µg/kg	1000	1.0	05/16/11	V911E16A	05/16/11	V911E16A
2. Acrylonitrile	<b>6900</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
3. Benzene	<b>5100</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
4. Bromobenzene	<b>5200</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
5. Bromochloromethane	<b>5700</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
6. Bromodichloromethane	<b>5900</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
7. Bromoform	<b>6100</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
8. Bromomethane	<b>3900</b>		µg/kg	200	1.0	05/16/11	V911E16A	05/16/11	V911E16A
9. 2-Butanone	<b>5300</b>		µg/kg	750	1.0	05/16/11	V911E16A	05/16/11	V911E16A
10. n-Butylbenzene	<b>5900</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
11. sec-Butylbenzene	<b>5700</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
12. tert-Butylbenzene	<b>5600</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
13. Carbon Disulfide	<b>4200</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
14. Carbon Tetrachloride	<b>5200</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
15. Chlorobenzene	<b>4900</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
16. Chloroethane	<b>4500</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
17. Chloroform	<b>5400</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
18. Chloromethane	<b>5100</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
19. 2-Chlorotoluene	<b>5200</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
20. Dibromochloromethane	<b>5700</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
21. 1,2-Dibromo-3-chloropropane (NN)	<b>6200</b>		µg/kg	11	1.0	05/16/11	V911E16A	05/16/11	V911E16A
22. Dibromomethane	<b>5400</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
23. 1,2-Dichlorobenzene	<b>5000</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
24. 1,3-Dichlorobenzene	<b>4900</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
25. 1,4-Dichlorobenzene	<b>4600</b>		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
26. Dichlorodifluoromethane	<b>5800</b>		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
27. 1,1-Dichloroethane	<b>5400</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
28. 1,2-Dichloroethane	<b>10000</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
29. 1,1-Dichloroethene	<b>5300</b>		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MSD</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-008		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
30. cis-1,2-Dichloroethene	6300		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
31. trans-1,2-Dichloroethene	4100		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
32. 1,2-Dichloropropane	5600		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
33. cis-1,3-Dichloropropene	6100		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
34. trans-1,3-Dichloropropene	6100		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
35. Ethylbenzene	5000		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
36. Ethylene Dibromide	10000		µg/kg	20	1.0	05/16/11	V911E16A	05/16/11	V911E16A
37. 2-Hexanone	6600		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
38. Isopropylbenzene	5600		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
39. Methyl Iodide	4200		µg/kg	110	1.0	05/16/11	V911E16A	05/16/11	V911E16A
40. Methylene Chloride	4700		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
41. 4-Methyl-2-pentanone	6500		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
42. MTBE	11000		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
43. Naphthalene	6300		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
44. n-Propylbenzene	5600		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
45. Styrene	5700		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
46. 1,1,1,2-Tetrachloroethane	5400		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
47. 1,1,2,2-Tetrachloroethane	5700		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
48. Tetrachloroethene	4800		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
49. Toluene	5300		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
50. 1,2,4-Trichlorobenzene	5500		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
51. 1,1,1-Trichloroethane	5300		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
52. 1,1,2-Trichloroethane	5400		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
53. Trichloroethene	5300		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
54. Trichlorofluoromethane	5500		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
55. 1,2,3-Trichloropropane	5400		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
56. 1,2,3-Trimethylbenzene (NN)	5300		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
57. 1,2,4-Trimethylbenzene	5500		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
58. 1,3,5-Trimethylbenzene	5500		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
59. Vinyl Chloride	5600		µg/kg	40	1.0	05/16/11	V911E16A	05/16/11	V911E16A
60. Xylenes	16000		µg/kg	150	1.0	05/16/11	V911E16A	05/16/11	V911E16A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	4800		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
2. Acenaphthylene (SIM)	4700		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
3. Anthracene (SIM)	4700		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
4. Benzo(a)anthracene (SIM)	4600		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
5. Benzo(a)pyrene (SIM)	5100		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
6. Benzo(b)fluoranthene (SIM)	5100		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-S1 MSD</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>15:40</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
7. Benzo(ghi)perylene (SIM)	4800		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
8. Benzo(k)fluoranthene (SIM)	5100		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
9. Chrysene (SIM)	4300		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
10. Dibenzo(a,h)anthracene (SIM)	4900		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
11. Fluoranthene (SIM)	5100		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
12. Fluorene (SIM)	4800		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
13. Indeno(1,2,3-cd)pyrene (SIM)	4700		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
14. 2-Methylnaphthalene (SIM)	4000		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
15. Phenanthrene (SIM)	4900		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A
16. Pyrene (SIM)	5000		µg/kg	330	20	05/13/11	PS11E13B	05/16/11	S711E16A

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	3300		µg/kg	200	1.0	05/13/11	PW11E13B	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44476-008A		Matrix: Soil/Solid		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	240000		µg/kg	10000	1.0	05/12/11 18:39	PW11E12F	05/13/11 08:43	WC11E12A

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>TRIP BLANK</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>10</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-010		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/16/11	V911E16A	05/16/11	V911E16A
2. Acrylonitrile	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
3. Benzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
4. Bromobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
5. Bromochloromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
7. Bromoform	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
8. Bromomethane	U		µg/kg	200	1.0	05/16/11	V911E16A	05/16/11	V911E16A
9. 2-Butanone	U		µg/kg	750	1.0	05/16/11	V911E16A	05/16/11	V911E16A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
15. Chlorobenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
16. Chloroethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
17. Chloroform	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
18. Chloromethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
20. Dibromochloromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	10	1.0	05/16/11	V911E16A	05/16/11	V911E16A
22. Dibromomethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
35. Ethylbenzene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/16/11	V911E16A	05/16/11	V911E16A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
39. Methyl Iodide	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
40. Methylene Chloride	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>TRIP BLANK</b>	Chain of Custody:	<b>108225</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>10</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44476-010		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/16/11	V911E16A	05/16/11	V911E16A
43. MTBE	U		µg/kg	250	1.0	05/16/11	V911E16A	05/16/11	V911E16A
44. Naphthalene	U		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
45. n-Propylbenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
46. Styrene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
49. Tetrachloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
50. Toluene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/16/11	V911E16A	05/16/11	V911E16A
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
54. Trichloroethene	U		µg/kg	50	1.0	05/16/11	V911E16A	05/16/11	V911E16A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/16/11	V911E16A	05/16/11	V911E16A
60. Vinyl Chloride	U		µg/kg	40	1.0	05/16/11	V911E16A	05/16/11	V911E16A
61. Xylenes	U		µg/kg	150	1.0	05/16/11	V911E16A	05/16/11	V911E16A



Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB5-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>14:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-012A		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cadmium	U		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Chromium	U		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Lead	U		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-012		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB5-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>14:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-012		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-012B		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
2. Acenaphthylene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB5-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>14:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-012B		Matrix: Ground Water	Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
12 Fluorene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.1	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-015B		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	7.6		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Barium	120		µg/L	100	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Cadmium	U		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
4. Chromium	U		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
5. Copper	U		µg/L	4.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
6. Lead	U		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
7. Selenium	U		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
8. Silver	U		µg/L	0.20	10	05/12/11	PT11E12D	05/12/11	T211E12A
9. Zinc	U		µg/L	50	10	05/12/11	PT11E12D	05/12/11	T211E12A

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 44476-015A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/L	5.0	1.0	NA	NA	05/11/11 13:50	WF11E11A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44476-015B		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	05/13/11	PM11E13A	05/13/11	M411E13A

Organochlorine Pesticides (EPA 3535A/EPA 8081B)					Aliquot ID: 44476-015D		Matrix: Ground Water		Analyst: GAN
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
2. alpha-BHC (NN)	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
3. beta-BHC (NN)	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
4. delta-BHC	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
5. gamma-BHC (NN)	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
6. Chlordane (NN)	U		µg/L	0.050	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
7. 4,4'-DDD	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
8. 4,4'-DDE	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
9. 4,4'-DDT	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
10. Dieldrin	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
11. Endosulfan I	U		µg/L	0.030	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
12. Endosulfan II	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
13. Endosulfan Sulfate	U		µg/L	0.050	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
14. Endrin	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
15. Endrin Aldehyde	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
16. Heptachlor	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
17. Heptachlor Epoxide	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
18. Methoxychlor	U		µg/L	0.50	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Organochlorine Pesticides (EPA 3535A/EPA 8081B)				Aliquot ID: 44476-015D			Matrix: Ground Water	Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
19. Toxaphene (NN)	U		µg/L	1.0	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A

Organochlorine Herbicides (EPA 8151A)				Aliquot ID: 44476-015D			Matrix: Ground Water	Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
2. Dalapon	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
3. 2,4-DB	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
4. Dicamba	U		µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
5. Dichlorprop (NN)	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
6. Dinoseb (NN)	U		µg/L	5.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
7. 2,4,5-T	U		µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
8. 2,4,5-TP (NN)	U		µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44476-015			Matrix: Ground Water	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-015		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-015D		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-015D		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
2. Acenaphthylene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
12. Fluorene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

Cyanide, Total (EPA 9010C/EPA 9014)					Aliquot ID: 44476-015C		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	U		µg/L	5.0	1.0	05/13/11	PW11E13A	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 9056)					Aliquot ID: 44476-015A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	140000		µg/L	2000	4.0	05/16/11 09:40	PW11E16A	05/17/11 13:19	WC11E16A

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MS</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-016B		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	120		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Barium	660		µg/L	100	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Cadmium	120		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
4. Chromium	210		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
5. Copper	210		µg/L	4.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
6. Lead	200		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
7. Selenium	120		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
8. Silver	110		µg/L	0.20	10	05/12/11	PT11E12D	05/12/11	T211E12A
9. Zinc	520		µg/L	50	10	05/12/11	PT11E12D	05/12/11	T211E12A

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 44476-016A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	51		µg/L	5.0	1.0	NA	NA	05/11/11 13:50	WF11E11A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44476-016B		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	0.21		µg/L	0.20	1.0	05/13/11	PM11E13A	05/13/11	M411E13A

Organochlorine Pesticides (EPA 3535A/EPA 8081B)					Aliquot ID: 44476-016D		Matrix: Ground Water		Analyst: GAN
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	0.075	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
2. alpha-BHC (NN)	0.086	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
3. beta-BHC (NN)	0.091		µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
4. delta-BHC	0.085	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
5. gamma-BHC (NN)	0.088	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
6. 4,4'-DDE	0.082		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
7. 4,4'-DDT	0.083		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
8. Dieldrin	0.087		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
9. Endosulfan I	0.094		µg/L	0.060	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
10. Endosulfan II	0.087		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
11. Endrin	0.087		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
12. Heptachlor	0.082		µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
13. Heptachlor Epoxide	0.084	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A

Organochlorine Herbicides (EPA 8151A)					Aliquot ID: 44476-016D		Matrix: Ground Water		Analyst: TMC
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	10	J,V+	µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MS</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Organochlorine Herbicides (EPA 8151A)				Aliquot ID: 44476-016D		Matrix: Ground Water		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
2,2,4,5-TP (NN)	11	J,V+	µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44476-016		Matrix: Ground Water		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	130		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	110		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	140		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	110		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	130		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	130		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	79	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	99		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	260		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	220		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MS</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-016		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
37. 2-Hexanone	140		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	100		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	130		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	140		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	250		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	110		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	110		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	100	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	350		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-016D		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	66		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
2. Acenaphthylene	68		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	67		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	71		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	72		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	73		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	64		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	72		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	62		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	68		µg/L	2.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	72		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
12. Fluorene	69		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	68		µg/L	2.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MS</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-016D		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. 2-Methylnaphthalene	<b>55</b>		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	<b>68</b>		µg/L	2.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	<b>71</b>		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C

Cyanide, Total (EPA 9010C/EPA 9014)					Aliquot ID: 44476-016C		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	<b>230</b>		µg/L	5.0	1.0	05/13/11	PW11E13A	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 9056)					Aliquot ID: 44476-016A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	<b>160000</b>		µg/L	2000	4.0	05/16/11 09:40	PW11E16A	05/17/11 13:36	WC11E16A

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MSD</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-017B		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	120		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Barium	650		µg/L	100	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Cadmium	120		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
4. Chromium	210		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
5. Copper	220		µg/L	4.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
6. Lead	200		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
7. Selenium	120		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
8. Silver	110		µg/L	0.20	10	05/12/11	PT11E12D	05/12/11	T211E12A
9. Zinc	540		µg/L	50	10	05/12/11	PT11E12D	05/12/11	T211E12A

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 44476-017A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	51		µg/L	5.0	1.0	NA	NA	05/11/11 13:51	WF11E11A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44476-017B		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	0.21		µg/L	0.20	1.0	05/13/11	PM11E13A	05/13/11	M411E13A

Organochlorine Pesticides (EPA 3535A/EPA 8081B)					Aliquot ID: 44476-017D		Matrix: Ground Water		Analyst: GAN
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	0.059	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
2. alpha-BHC (NN)	0.074	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
3. beta-BHC (NN)	0.080		µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
4. delta-BHC	0.075	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
5. gamma-BHC (NN)	0.076	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
6. 4,4'-DDE	0.071		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
7. 4,4'-DDT	0.074		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
8. Dieldrin	0.078		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
9. Endosulfan I	0.083		µg/L	0.060	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
10. Endosulfan II	0.082		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
11. Endrin	0.080		µg/L	0.040	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
12. Heptachlor	0.066		µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A
13. Heptachlor Epoxide	0.072	J,V+	µg/L	0.020	2.0	05/12/11	PS11E12E	05/16/11	SA11E16A

Organochlorine Herbicides (EPA 8151A)					Aliquot ID: 44476-017D		Matrix: Ground Water		Analyst: TMC
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	11	J,V+	µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MSD</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Organochlorine Herbicides (EPA 8151A)				Aliquot ID: 44476-017D		Matrix: Ground Water		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
2,2,4,5-TP (NN)	11	J,V+	µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44476-017		Matrix: Ground Water		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	130		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	110		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	170		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	110		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	130		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	93	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	110		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	98		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	120		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	250		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	220		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MSD</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-017		Matrix: Ground Water	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
37. 2-Hexanone	140		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	110		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	130		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	130		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	130		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	260		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	110		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	110		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	100	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	100		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	120		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	110		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	130		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	340		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-017D		Matrix: Ground Water	Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	74		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
2. Acenaphthylene	76		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	73		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	77		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	79		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	80		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	69		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	78		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	66		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	74		µg/L	2.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	79		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
12. Fluorene	76		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	76		µg/L	2.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB8-GW MSD</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-017D		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. 2-Methylnaphthalene	<b>63</b>		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	<b>75</b>		µg/L	2.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	<b>78</b>		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C

Cyanide, Total (EPA 9010C/EPA 9014)					Aliquot ID: 44476-017C		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	<b>220</b>		µg/L	5.0	1.0	05/13/11	PW11E13A	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 9056)					Aliquot ID: 44476-017A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	<b>160000</b>		µg/L	2000	4.0	05/16/11 09:40	PW11E16A	05/17/11 13:54	WC11E16A

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB9-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>18</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>20:40</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-018A		Matrix: Ground Water	Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cadmium	U		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Chromium	U		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Lead	U		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-018		Matrix: Ground Water	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB9-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>18</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>20:40</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-018		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-018B		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
2. Acenaphthylene	U		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	U		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	U		µg/L	1.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB9-GW</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>18</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>20:40</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-018B		Matrix: Ground Water	Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
12 Fluorene	U		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.1	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
14. 2-Methylnaphthalene	U		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	U		µg/L	2.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	U		µg/L	5.0	1.1	05/12/11	PS11E12B	05/12/11	S711E12C



Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>19</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-019B		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	8.1		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Barium	120		µg/L	100	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Cadmium	U		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
4. Chromium	U		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
5. Copper	4.1		µg/L	4.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
6. Lead	U		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
7. Selenium	U		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
8. Silver	U		µg/L	0.20	10	05/12/11	PT11E12D	05/12/11	T211E12A
9. Zinc	U		µg/L	50	10	05/12/11	PT11E12D	05/12/11	T211E12A

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 44476-019A		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/L	5.0	1.0	NA	NA	05/11/11 13:51	WF11E11A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44476-019B		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	05/13/11	PM11E13A	05/13/11	M411E13A

Organochlorine Pesticides (EPA 3535A/EPA 8081B)					Aliquot ID: 44476-019D		Matrix: Ground Water		Analyst: GAN
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
2. alpha-BHC (NN)	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
3. beta-BHC (NN)	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
4. delta-BHC	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
5. gamma-BHC (NN)	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
6. Chlordane (NN)	U		µg/L	0.050	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
7. 4,4'-DDD	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
8. 4,4'-DDE	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
9. 4,4'-DDT	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
10. Dieldrin	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
11. Endosulfan I	U		µg/L	0.030	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
12. Endosulfan II	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
13. Endosulfan Sulfate	U		µg/L	0.050	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
14. Endrin	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
15. Endrin Aldehyde	U		µg/L	0.020	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
16. Heptachlor	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
17. Heptachlor Epoxide	U		µg/L	0.010	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A
18. Methoxychlor	U		µg/L	0.50	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>19</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Organochlorine Pesticides (EPA 3535A/EPA 8081B)				Aliquot ID: 44476-019D		Matrix: Ground Water		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
19. Toxaphene (NN)	U		µg/L	1.0	1.0	05/12/11	PS11E12E	05/16/11	SA11E16A

Organochlorine Herbicides (EPA 8151A)				Aliquot ID: 44476-019D		Matrix: Ground Water		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
2. Dalapon	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
3. 2,4-DB	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
4. Dicamba	U		µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
5. Dichlorprop (NN)	U		µg/L	10	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
6. Dinoseb (NN)	U		µg/L	5.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
7. 2,4,5-T	U		µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B
8. 2,4,5-TP (NN)	U		µg/L	1.0	1.0	05/12/11	PS11E12C	05/13/11	SC11E12B

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44476-019		Matrix: Ground Water		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>19</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-019		Matrix: Ground Water	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-019D		Matrix: Ground Water	Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP 1</b>	Chain of Custody:	<b>108224</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>19</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-019D		Matrix: Ground Water	Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
2. Acenaphthylene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
12. Fluorene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

Cyanide, Total (EPA 9010C/EPA 9014)					Aliquot ID: 44476-019C		Matrix: Ground Water	Analyst: DMS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	U		µg/L	5.0	1.0	05/13/11	PW11E13A	05/13/11	WP11E13A

Inorganic Anions by IC (EPA 9056)					Aliquot ID: 44476-019A		Matrix: Ground Water	Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	140000		µg/L	2000	4.0	05/16/11 09:40	PW11E16A	05/17/11 14:11	WC11E16A

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>FIELD BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>20</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:15</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-020		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>FIELD BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>20</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:15</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44476-020		Matrix: Ground Water		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
41. 2-Methylnaphthalene (NN)	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
61. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B



Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>EQUIPMENT BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>21</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44476-021A		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
2. Barium	U		µg/L	100	10	05/12/11	PT11E12D	05/12/11	T211E12A
3. Cadmium	U		µg/L	1.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
4. Chromium	U		µg/L	10	10	05/12/11	PT11E12D	05/12/11	T211E12A
5. Copper	U		µg/L	4.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
6. Lead	U		µg/L	3.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
7. Selenium	U		µg/L	5.0	10	05/12/11	PT11E12D	05/12/11	T211E12A
8. Silver	U		µg/L	0.20	10	05/12/11	PT11E12D	05/12/11	T211E12A
9. Zinc	U		µg/L	50	10	05/12/11	PT11E12D	05/12/11	T211E12A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44476-021A		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	05/13/11	PM11E13A	05/13/11	M411E13A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-021		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>EQUIPMENT BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>21</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-021		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44476-021B		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail			Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601		T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368		F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584		

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>EQUIPMENT BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>21</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>16:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)				Aliquot ID: 44476-021B			Matrix: Ground Water	Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
2. Acenaphthylene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
3. Anthracene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
9. Chrysene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
11. Fluoranthene	U		µg/L	1.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
12. Fluorene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
15. Phenanthrene	U		µg/L	2.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C
16. Pyrene	U		µg/L	5.0	1.0	05/12/11	PS11E12B	05/12/11	S711E12C

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>TRIP BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>22</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44476-022		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
2. Acrylonitrile	U		µg/L	2.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
3. Benzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
4. Bromobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
5. Bromochloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
7. Bromoform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
8. Bromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
9. 2-Butanone	U		µg/L	25	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
15. Chlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
16. Chloroethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
17. Chloroform	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
18. Chloromethane	U	J,V-	µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
22. Dibromomethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
35. Ethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
37. 2-Hexanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
39. Methyl Iodide	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
40. Methylene Chloride	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>TRIP BLANK</b>	Chain of Custody:	<b>108256</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>22</b>	Collect Date:	<b>05/10/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44476-022		Matrix: Ground Water		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
41. 2-Methylnaphthalene (NN)	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
42. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
43. MTBE	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
44. Naphthalene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
45. n-Propylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
46. Styrene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
47. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
48. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
49. Tetrachloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
50. Toluene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
51. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
52. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
53. 1,1,2-Trichloroethane	U	J,L-	µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
54. Trichloroethene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
55. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
56. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
57. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
58. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
59. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
60. Vinyl Chloride	U		µg/L	1.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B
61. Xylenes	U		µg/L	3.0	1.0	05/14/11	VB11E14B	05/15/11	VB11E14B

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

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**Exception Summary:**

- L-** : Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.  
**V-** : Recovery in the associated continuing calibration verification sample (CCV) exceeds the lower control limit. Results may be biased low.  
**V+** : Recovery in the associated continuing calibration verification sample (CCV) exceeds the upper control limit. Results may be biased high.
- 



Accreditation Number:

**E-10395**







Tuesday, May 24, 2011

Fibertec Project Number: 44583  
Project Identification: 26500 Northwestern Highway /PE54232D-06  
Submittal Date: 05/17/2011

Ms. Deb Osuch  
Soil and Materials Engineers, Inc. - Shelby Twp.  
13019 Pauline Drive  
Shelby Township, MI 48315

Dear Ms. Osuch,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB1-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>1</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>14:25</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44583-001A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>9.3</b>		%	0.1	1.0	05/18/11	MC110518	05/19/11	MC110518

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44583-001A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>1800</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
2. Barium	<b>5100</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
3. Cadmium	<b>53</b>		µg/kg	50	20	05/20/11	PT11E20A	05/20/11	T211E20A
4. Chromium	<b>2700</b>		µg/kg	500	20	05/20/11	PT11E20A	05/20/11	T211E20A
5. Copper	<b>4400</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
6. Lead	<b>2000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
7. Selenium	U		µg/kg	200	20	05/20/11	PT11E20A	05/20/11	T211E20A
8. Silver	U		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
9. Zinc	<b>12000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44583-001A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2800	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44583-001A		Matrix: Soil/Solid		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/19/11	PM11E19D	05/20/11	M411E20B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44583-001		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/18/11	V911E18B	05/19/11	V911E18B
2. Acrylonitrile	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
3. Benzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
4. Bromobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
5. Bromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
6. Bromodichloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
7. Bromoform	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
8. Bromomethane	U		µg/kg	200	1.0	05/18/11	V911E18B	05/19/11	V911E18B
9. 2-Butanone	U		µg/kg	750	1.0	05/18/11	V911E18B	05/19/11	V911E18B
10. n-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
13. Carbon Disulfide	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB1-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>1</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>14:25</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-001		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
15. Chlorobenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
16. Chloroethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
17. Chloroform	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
18. Chloromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
20. Dibromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/18/11	V911E18B	05/19/11	V911E18B
22. Dibromomethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
35. Ethylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/18/11	V911E18B	05/19/11	V911E18B
37. 2-Hexanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
38. Isopropylbenzene	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
39. Methyl Iodide	U		µg/kg	110	1.0	05/18/11	V911E18B	05/19/11	V911E18B
40. Methylene Chloride	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
42. MTBE	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
43. Naphthalene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
44. n-Propylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
45. Styrene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
48. Tetrachloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
49. Toluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
53. Trichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB1-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>1</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>14:25</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-001		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
59. Vinyl Chloride	U		µg/kg	40	1.0	05/18/11	V911E18B	05/19/11	V911E18B
60. Xylenes	U		µg/kg	150	1.0	05/18/11	V911E18B	05/19/11	V911E18B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44583-001A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
2. Acenaphthylene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
3. Anthracene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
9. Chrysene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
11. Fluoranthene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
12. Fluorene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
15. Phenanthrene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A
16. Pyrene	U		µg/kg	330	1.0	05/20/11	PS11E20B	05/22/11	S711E21A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB2-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>2</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>14:15</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44583-002A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>6.5</b>		%	0.1	1.0	05/18/11	MC110518	05/19/11	MC110518

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44583-002A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>2000</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
2. Barium	<b>4700</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
3. Cadmium	U		µg/kg	50	20	05/20/11	PT11E20A	05/20/11	T211E20A
4. Chromium	<b>3000</b>		µg/kg	500	20	05/20/11	PT11E20A	05/20/11	T211E20A
5. Copper	<b>4800</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
6. Lead	<b>2600</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
7. Selenium	<b>210</b>		µg/kg	200	20	05/20/11	PT11E20A	05/20/11	T211E20A
8. Silver	U		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
9. Zinc	<b>13000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44583-002A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2700	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44583-002A		Matrix: Soil/Solid		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/19/11	PM11E19D	05/20/11	M411E20B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44583-002		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/18/11	V911E18B	05/19/11	V911E18B
2. Acrylonitrile	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
3. Benzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
4. Bromobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
5. Bromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
6. Bromodichloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
7. Bromoform	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
8. Bromomethane	U		µg/kg	200	1.0	05/18/11	V911E18B	05/19/11	V911E18B
9. 2-Butanone	U		µg/kg	750	1.0	05/18/11	V911E18B	05/19/11	V911E18B
10. n-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
13. Carbon Disulfide	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB2-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>2</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>14:15</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-002		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
15. Chlorobenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
16. Chloroethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
17. Chloroform	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
18. Chloromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
20. Dibromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/18/11	V911E18B	05/19/11	V911E18B
22. Dibromomethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
35. Ethylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/18/11	V911E18B	05/19/11	V911E18B
37. 2-Hexanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
38. Isopropylbenzene	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
39. Methyl Iodide	U		µg/kg	110	1.0	05/18/11	V911E18B	05/19/11	V911E18B
40. Methylene Chloride	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
42. MTBE	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
43. Naphthalene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
44. n-Propylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
45. Styrene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
48. Tetrachloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
49. Toluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
53. Trichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB2-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>2</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>14:15</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-002		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
59. Vinyl Chloride	U		µg/kg	40	1.0	05/18/11	V911E18B	05/19/11	V911E18B
60. Xylenes	U		µg/kg	150	1.0	05/18/11	V911E18B	05/19/11	V911E18B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44583-002A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
2. Acenaphthylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
3. Anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
4. Benzo(a)anthracene (SIM)	U		µg/kg	570	40	05/20/11	PS11E20B	05/21/11	S711E21A
5. Benzo(a)pyrene (SIM)	U		µg/kg	570	40	05/20/11	PS11E20B	05/21/11	S711E21A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
9. Chrysene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
11. Fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
12. Fluorene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	570	40	05/20/11	PS11E20B	05/21/11	S711E21A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
15. Phenanthrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
16. Pyrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB3-S2</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>13:15</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44583-004A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>15</b>		%	0.1	1.0	05/18/11	MC110518	05/19/11	MC110518

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44583-004A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>4000</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
2. Barium	<b>72000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
3. Cadmium	<b>780</b>		µg/kg	50	20	05/20/11	PT11E20A	05/20/11	T211E20A
4. Chromium	<b>19000</b>		µg/kg	500	20	05/20/11	PT11E20A	05/20/11	T211E20A
5. Copper	<b>32000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
6. Lead	<b>130000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
7. Selenium	<b>350</b>		µg/kg	200	20	05/20/11	PT11E20A	05/20/11	T211E20A
8. Silver	<b>350</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
9. Zinc	<b>390000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44583-004A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2900	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44583-004A		Matrix: Soil/Solid		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/19/11	PM11E19D	05/20/11	M411E20B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44583-004		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/18/11	V911E18B	05/19/11	V911E18B
2. Acrylonitrile	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
3. Benzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
4. Bromobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
5. Bromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
6. Bromodichloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
7. Bromoform	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
8. Bromomethane	U		µg/kg	200	1.0	05/18/11	V911E18B	05/19/11	V911E18B
9. 2-Butanone	U		µg/kg	750	1.0	05/18/11	V911E18B	05/19/11	V911E18B
10. n-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
13. Carbon Disulfide	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB3-S2</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>13:15</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-004		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
15. Chlorobenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
16. Chloroethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
17. Chloroform	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
18. Chloromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
20. Dibromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	12	1.0	05/18/11	V911E18B	05/19/11	V911E18B
22. Dibromomethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
35. Ethylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/18/11	V911E18B	05/19/11	V911E18B
37. 2-Hexanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
38. Isopropylbenzene	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
39. Methyl Iodide	U		µg/kg	120	1.0	05/18/11	V911E18B	05/19/11	V911E18B
40. Methylene Chloride	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
42. MTBE	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
43. Naphthalene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
44. n-Propylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
45. Styrene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
48. Tetrachloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
49. Toluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
53. Trichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB3-S2</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>4</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>13:15</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-004		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
59. Vinyl Chloride	U		µg/kg	40	1.0	05/18/11	V911E18B	05/19/11	V911E18B
60. Xylenes	U		µg/kg	150	1.0	05/18/11	V911E18B	05/19/11	V911E18B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44583-004A		Matrix: Soil/Solid		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
2. Acenaphthylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
3. Anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
4. Benzo(a)anthracene (SIM)	U		µg/kg	630	40	05/20/11	PS11E20B	05/21/11	S711E21A
5. Benzo(a)pyrene (SIM)	U		µg/kg	630	40	05/20/11	PS11E20B	05/21/11	S711E21A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
9. Chrysene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
11. Fluoranthene (SIM)	<b>380</b>		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
12. Fluorene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	630	40	05/20/11	PS11E20B	05/21/11	S711E21A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
15. Phenanthrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A
16. Pyrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>12:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>9.5</b>		%	0.1	1.0	05/18/11	MC110518	05/19/11	MC110518

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>2900</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
2. Barium	<b>9700</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
3. Cadmium	<b>150</b>		µg/kg	50	20	05/20/11	PT11E20A	05/20/11	T211E20A
4. Chromium	<b>6100</b>		µg/kg	500	20	05/20/11	PT11E20A	05/20/11	T211E20A
5. Copper	<b>5500</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
6. Lead	<b>7400</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
7. Selenium	<b>280</b>		µg/kg	200	20	05/20/11	PT11E20A	05/20/11	T211E20A
8. Silver	U		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
9. Zinc	<b>21000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2800	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/19/11	PM11E19D	05/20/11	M411E20B

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
2. alpha-BHC (NN)	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
3. beta-BHC (NN)	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
4. delta-BHC	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
5. gamma-BHC (NN)	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
6. Chlordane (NN)	U		µg/kg	28	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
7. 4,4'-DDD	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
8. 4,4'-DDE	<b>72</b>		µg/kg	22	1.0	05/19/11	PS11E19D	05/23/11	SA11E23A
9. 4,4'-DDT	<b>31</b>		µg/kg	22	1.0	05/19/11	PS11E19D	05/23/11	SA11E23A
10. Dieldrin	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
11. Endosulfan I	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
12. Endosulfan II	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
13. Endosulfan Sulfate	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>12:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Endrin	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
15. Endrin Aldehyde	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
16. Heptachlor	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
17. Heptachlor Epoxide	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
18. Methoxychlor	U		µg/kg	55	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
19. Toxaphene (NN)	U		µg/kg	190	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A

Organochlorine Herbicides (EPA 3550C/EPA 8151A)				Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
2. Dalapon	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
3. 2,4-DB	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
4. Dicamba	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
5. Dichlorprop (NN)	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
7. 2,4,5-T	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
8. 2,4,5-TP (NN)	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 44583-006		Matrix: Soil/Solid		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/18/11	V911E18B	05/19/11	V911E18B
2. Acrylonitrile	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
3. Benzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
4. Bromobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
5. Bromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
6. Bromodichloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
7. Bromoform	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
8. Bromomethane	U		µg/kg	200	1.0	05/18/11	V911E18B	05/19/11	V911E18B
9. 2-Butanone	U		µg/kg	750	1.0	05/18/11	V911E18B	05/19/11	V911E18B
10. n-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
13. Carbon Disulfide	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
15. Chlorobenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
16. Chloroethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
17. Chloroform	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
18. Chloromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>12:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-006		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
20. Dibromochloromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/18/11	V911E18B	05/19/11	V911E18B
22. Dibromomethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
35. Ethylbenzene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/18/11	V911E18B	05/19/11	V911E18B
37. 2-Hexanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
38. Isopropylbenzene	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
39. Methyl Iodide	U		µg/kg	110	1.0	05/18/11	V911E18B	05/19/11	V911E18B
40. Methylene Chloride	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/18/11	V911E18B	05/19/11	V911E18B
42. MTBE	U		µg/kg	250	1.0	05/18/11	V911E18B	05/19/11	V911E18B
43. Naphthalene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
44. n-Propylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
45. Styrene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
48. Tetrachloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
49. Toluene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/18/11	V911E18B	05/19/11	V911E18B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
53. Trichloroethene	U		µg/kg	50	1.0	05/18/11	V911E18B	05/19/11	V911E18B
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/18/11	V911E18B	05/19/11	V911E18B
59. Vinyl Chloride	U		µg/kg	40	1.0	05/18/11	V911E18B	05/19/11	V911E18B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>12:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-006		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
60. Xylenes	U		µg/kg	150	1.0	05/18/11	V911E18B	05/19/11	V911E18B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
2. Acenaphthylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
3. Anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
4. Benzo(a)anthracene (SIM)	U		µg/kg	590	40	05/20/11	PS11E20B	05/21/11	S711E21A	
5. Benzo(a)pyrene (SIM)	U		µg/kg	590	40	05/20/11	PS11E20B	05/21/11	S711E21A	
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
9. Chrysene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
11. Fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
12. Fluorene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	590	40	05/20/11	PS11E20B	05/21/11	S711E21A	
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
15. Phenanthrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
16. Pyrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1.Cyanide	U		µg/kg	200	1.0	05/18/11	PW11E18B	05/18/11	WP11E18B

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44583-006A		Matrix: Soil/Solid		Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Sulfate	U		µg/kg	10000	1.0	05/19/11 15:02	PW11E19D	05/20/11 18:25	WC11E16A	

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB11-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>12</b>		%	0.1	1.0	05/18/11	MC110518	05/19/11	MC110518

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>3900</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
2. Barium	<b>25000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
3. Cadmium	<b>260</b>		µg/kg	50	20	05/20/11	PT11E20A	05/20/11	T211E20A
4. Chromium	<b>7600</b>		µg/kg	500	20	05/20/11	PT11E20A	05/20/11	T211E20A
5. Copper	<b>8700</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
6. Lead	<b>20000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
7. Selenium	U		µg/kg	200	20	05/20/11	PT11E20A	05/20/11	T211E20A
8. Silver	U		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
9. Zinc	<b>70000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2800	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/19/11	PM11E19D	05/20/11	M411E20B

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
2. alpha-BHC (NN)	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
3. beta-BHC (NN)	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
4. delta-BHC	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
5. gamma-BHC (NN)	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
6. Chlordane (NN)	U		µg/kg	28	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
7. 4,4'-DDD	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
8. 4,4'-DDE	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
9. 4,4'-DDT	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
10. Dieldrin	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
11. Endosulfan I	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
12. Endosulfan II	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
13. Endosulfan Sulfate	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB11-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

<b>Organochlorine Pesticides (EPA 3550C/EPA 8081B)</b>				<b>Aliquot ID: 44583-008A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: GAN</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Endrin	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
15. Endrin Aldehyde	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
16. Heptachlor	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
17. Heptachlor Epoxide	U		µg/kg	23	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
18. Methoxychlor	U		µg/kg	57	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
19. Toxaphene (NN)	U		µg/kg	190	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A

<b>Organochlorine Herbicides (EPA 3550C/EPA 8151A)</b>				<b>Aliquot ID: 44583-008A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: TMC</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	230	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
2. Dalapon	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
3. 2,4-DB	U		µg/kg	230	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
4. Dicamba	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
5. Dichlorprop (NN)	U		µg/kg	230	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
7. 2,4,5-T	U		µg/kg	230	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
8. 2,4,5-TP (NN)	U		µg/kg	230	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B

<b>Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)</b>				<b>Aliquot ID: 44583-008</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: JAS</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/19/11	V911E19A	05/19/11	V911E19A
2. Acrylonitrile	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
3. Benzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
4. Bromobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
5. Bromochloromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
7. Bromoform	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
8. Bromomethane	U		µg/kg	200	1.0	05/19/11	V911E19A	05/19/11	V911E19A
9. 2-Butanone	U		µg/kg	750	1.0	05/19/11	V911E19A	05/19/11	V911E19A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
15. Chlorobenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
16. Chloroethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
17. Chloroform	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
18. Chloromethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB11-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-008		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
20. Dibromochloromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/19/11	V911E19A	05/19/11	V911E19A
22. Dibromomethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
35. Ethylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/19/11	V911E19A	05/19/11	V911E19A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/19/11	V911E19A	05/19/11	V911E19A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
39. Methyl Iodide	U		µg/kg	110	1.0	05/19/11	V911E19A	05/19/11	V911E19A
40. Methylene Chloride	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/19/11	V911E19A	05/19/11	V911E19A
42. MTBE	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
43. Naphthalene	U		µg/kg	330	1.0	05/19/11	V911E19A	05/19/11	V911E19A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
45. Styrene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
49. Toluene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/19/11	V911E19A	05/19/11	V911E19A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
53. Trichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/19/11	V911E19A	05/19/11	V911E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB11-S1</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>11:00</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-008		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
60. Xylenes	U		µg/kg	150	1.0	05/19/11	V911E19A	05/19/11	V911E19A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
2. Acenaphthylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
3. Anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
4. Benzo(a)anthracene (SIM)	U		µg/kg	610	40	05/20/11	PS11E20B	05/21/11	S711E21A	
5. Benzo(a)pyrene (SIM)	U		µg/kg	610	40	05/20/11	PS11E20B	05/21/11	S711E21A	
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
9. Chrysene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
11. Fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
12. Fluorene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	610	40	05/20/11	PS11E20B	05/21/11	S711E21A	
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
15. Phenanthrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
16. Pyrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1.Cyanide	570		µg/kg	200	1.0	05/18/11	PW11E18B	05/18/11	WP11E18B

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44583-008A		Matrix: Soil/Solid		Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Sulfate	15000		µg/kg	10000	1.0	05/19/11 15:02	PW11E19D	05/20/11 18:42	WC11E16A	

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-S</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>9</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	<b>10</b>		%	0.1	1.0	05/18/11	MC110518	05/19/11	MC110518

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	<b>4000</b>		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
2. Barium	<b>17000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
3. Cadmium	<b>180</b>		µg/kg	50	20	05/20/11	PT11E20A	05/20/11	T211E20A
4. Chromium	<b>6700</b>		µg/kg	500	20	05/20/11	PT11E20A	05/20/11	T211E20A
5. Copper	<b>7600</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A
6. Lead	<b>270000</b>		µg/kg	1000	200	05/20/11	PT11E20A	05/23/11	T211E23A
7. Selenium	<b>200</b>		µg/kg	200	20	05/20/11	PT11E20A	05/20/11	T211E20A
8. Silver	U		µg/kg	100	20	05/20/11	PT11E20A	05/20/11	T211E20A
9. Zinc	<b>31000</b>		µg/kg	1000	20	05/20/11	PT11E20A	05/20/11	T211E20A

Chromium, Hexavalent (EPA 3060A/EPA 7196A)				Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: LRW	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/kg	2800	1.0	05/17/11	WF11E17A	05/18/11	WF11E17A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	05/19/11	PM11E19D	05/20/11	M411E20B

Organochlorine Pesticides (EPA 3550C/EPA 8081B)				Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
2. alpha-BHC (NN)	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
3. beta-BHC (NN)	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
4. delta-BHC	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
5. gamma-BHC (NN)	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
6. Chlordane (NN)	U		µg/kg	28	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
7. 4,4'-DDD	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
8. 4,4'-DDE	<b>39</b>		µg/kg	22	1.0	05/19/11	PS11E19D	05/23/11	SA11E23A
9. 4,4'-DDT	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/23/11	SA11E23A
10. Dieldrin	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
11. Endosulfan I	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
12. Endosulfan II	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
13. Endosulfan Sulfate	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-S</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>9</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

<b>Organochlorine Pesticides (EPA 3550C/EPA 8081B)</b>				<b>Aliquot ID: 44583-009A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: GAN</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
14. Endrin	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
15. Endrin Aldehyde	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
16. Heptachlor	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
17. Heptachlor Epoxide	U		µg/kg	22	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
18. Methoxychlor	U		µg/kg	56	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A
19. Toxaphene (NN)	U		µg/kg	190	1.0	05/19/11	PS11E19D	05/20/11	SA11E20A

<b>Organochlorine Herbicides (EPA 3550C/EPA 8151A)</b>				<b>Aliquot ID: 44583-009A</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: TMC</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
2. Dalapon	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
3. 2,4-DB	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
4. Dicamba	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
5. Dichlorprop (NN)	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
6. Dinoseb (NN)	U		µg/kg	110	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
7. 2,4,5-T	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B
8. 2,4,5-TP (NN)	U		µg/kg	220	1.0	05/19/11	PS11E19E	05/20/11	SC11E19B

<b>Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)</b>				<b>Aliquot ID: 44583-009</b>		<b>Matrix: Soil/Solid</b>		<b>Analyst: JAS</b>	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	05/19/11	V911E19A	05/19/11	V911E19A
2. Acrylonitrile	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
3. Benzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
4. Bromobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
5. Bromochloromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
6. Bromodichloromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
7. Bromoform	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
8. Bromomethane	U		µg/kg	200	1.0	05/19/11	V911E19A	05/19/11	V911E19A
9. 2-Butanone	U		µg/kg	750	1.0	05/19/11	V911E19A	05/19/11	V911E19A
10. n-Butylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
11. sec-Butylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
12. tert-Butylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
13. Carbon Disulfide	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
15. Chlorobenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
16. Chloroethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
17. Chloroform	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
18. Chloromethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-S</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>9</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-009		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
20. Dibromochloromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	11	1.0	05/19/11	V911E19A	05/19/11	V911E19A
22. Dibromomethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
35. Ethylbenzene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
36. Ethylene Dibromide	U		µg/kg	20	1.0	05/19/11	V911E19A	05/19/11	V911E19A
37. 2-Hexanone	U		µg/kg	2500	1.0	05/19/11	V911E19A	05/19/11	V911E19A
38. Isopropylbenzene	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
39. Methyl Iodide	U		µg/kg	110	1.0	05/19/11	V911E19A	05/19/11	V911E19A
40. Methylene Chloride	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	05/19/11	V911E19A	05/19/11	V911E19A
42. MTBE	U		µg/kg	250	1.0	05/19/11	V911E19A	05/19/11	V911E19A
43. Naphthalene	U		µg/kg	330	1.0	05/19/11	V911E19A	05/19/11	V911E19A
44. n-Propylbenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
45. Styrene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
48. Tetrachloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
49. Toluene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	05/19/11	V911E19A	05/19/11	V911E19A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
53. Trichloroethene	U		µg/kg	50	1.0	05/19/11	V911E19A	05/19/11	V911E19A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	05/19/11	V911E19A	05/19/11	V911E19A
59. Vinyl Chloride	U		µg/kg	40	1.0	05/19/11	V911E19A	05/19/11	V911E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-S</b>	Chain of Custody:	<b>108257</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>9</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Soil/Solid</b>	Collect Time:	<b>NA</b>
Sample Comments:	<b>Soil results have been calculated and reported on a dry weight basis unless otherwise noted.</b>				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)					Aliquot ID: 44583-009		Matrix: Soil/Solid		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
60. Xylenes	U		µg/kg	150	1.0	05/19/11	V911E19A	05/19/11	V911E19A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)					Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
2. Acenaphthylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
3. Anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
4. Benzo(a)anthracene (SIM)	U		µg/kg	590	40	05/20/11	PS11E20B	05/21/11	S711E21A	
5. Benzo(a)pyrene (SIM)	U		µg/kg	590	40	05/20/11	PS11E20B	05/21/11	S711E21A	
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
9. Chrysene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
11. Fluoranthene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
12. Fluorene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	590	40	05/20/11	PS11E20B	05/21/11	S711E21A	
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
15. Phenanthrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	
16. Pyrene (SIM)	U		µg/kg	330	40	05/20/11	PS11E20B	05/21/11	S711E21A	

Cyanide, Total (CLP ISM01.2/EPA 9014)					Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1.Cyanide	U		µg/kg	200	1.0	05/18/11	PW11E18B	05/18/11	WP11E18B

Inorganic Anions by IC (EPA 0300.0/EPA 9056)					Aliquot ID: 44583-009A		Matrix: Soil/Solid		Analyst: CML	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1.Sulfate	11000		µg/kg	10000	1.0	05/19/11 15:02	PW11E19D	05/20/11 18:59	WC11E16A	

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>12:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44583-012A		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
2. Barium	210		µg/L	100	10	05/18/11	PT11E18C	05/19/11	T211E19A
3. Cadmium	U		µg/L	1.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
4. Chromium	U		µg/L	10	10	05/18/11	PT11E18C	05/19/11	T211E19A
5. Copper	U		µg/L	4.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
6. Lead	U		µg/L	3.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
7. Selenium	U		µg/L	5.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
8. Silver	U		µg/L	0.20	10	05/18/11	PT11E18C	05/19/11	T211E19A
9. Zinc	U		µg/L	50	10	05/18/11	PT11E18C	05/19/11	T211E19A

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 44583-012D		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/L	5.0	1.0	NA	NA	05/17/11 12:06	WF11E17A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44583-012A		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	05/19/11	PM11E19B	05/20/11	M411E20A

Organochlorine Pesticides (EPA 3535A/EPA 8081B)					Aliquot ID: 44583-012C		Matrix: Ground Water		Analyst: GAN
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
2. alpha-BHC (NN)	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
3. beta-BHC (NN)	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
4. delta-BHC	U	J,L-	µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
5. gamma-BHC (NN)	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
6. Chlordane (NN)	U		µg/L	0.050	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
7. 4,4'-DDD	U		µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
8. 4,4'-DDE	U		µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
9. 4,4'-DDT	U		µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
10. Dieldrin	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
11. Endosulfan I	U		µg/L	0.030	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
12. Endosulfan II	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
13. Endosulfan Sulfate	U	J,L-	µg/L	0.050	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
14. Endrin	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
15. Endrin Aldehyde	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
16. Heptachlor	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
17. Heptachlor Epoxide	U	J,L-	µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
18. Methoxychlor	U	J,L-	µg/L	0.50	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>12:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Organochlorine Pesticides (EPA 3535A/EPA 8081B)				Aliquot ID: 44583-012C		Matrix: Ground Water		Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
19. Toxaphene (NN)	U		µg/L	1.0	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A

Organochlorine Herbicides (EPA 8151A)				Aliquot ID: 44583-012C		Matrix: Ground Water		Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
2. Dalapon	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
3. 2,4-DB	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
4. Dicamba	U		µg/L	1.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
5. Dichlorprop (NN)	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
6. Dinoseb (NN)	U		µg/L	5.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
7. 2,4,5-T	U		µg/L	1.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
8. 2,4,5-TP (NN)	U		µg/L	1.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44583-012		Matrix: Ground Water		Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
2. Acrylonitrile	U		µg/L	2.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
3. Benzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
4. Bromobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
5. Bromochloromethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
7. Bromoform	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
8. Bromomethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
9. 2-Butanone	U		µg/L	25	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
15. Chlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
16. Chloroethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
17. Chloroform	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
18. Chloromethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
22. Dibromomethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>12:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44583-012		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
35. Ethylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
37. 2-Hexanone	U		µg/L	50	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
39. Methyl Iodide	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
40. Methylene Chloride	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
42. MTBE	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
43. Naphthalene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
45. Styrene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
49. Toluene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
53. Trichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
60. Xylenes	U		µg/L	3.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44583-012C		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/L	5.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>SB10-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>12</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>12:30</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44583-012C		Matrix: Ground Water		Analyst: HLS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
2. Acenaphthylene (SIM)	U		µg/L	5.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
3. Anthracene (SIM)	U		µg/L	5.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
4. Benzo(a)anthracene (SIM)	U		µg/L	1.1	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
5. Benzo(a)pyrene (SIM)	U		µg/L	1.1	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
6. Benzo(b)fluoranthene (SIM)	U		µg/L	1.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
7. Benzo(ghi)perylene (SIM)	U		µg/L	1.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
8. Benzo(k)fluoranthene (SIM)	U		µg/L	1.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
9. Chrysene (SIM)	U		µg/L	1.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/L	2.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
11. Fluoranthene (SIM)	U		µg/L	1.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
12. Fluorene (SIM)	U		µg/L	5.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/L	2.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
14. 2-Methylnaphthalene (SIM)	U		µg/L	5.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
15. Phenanthrene (SIM)	U		µg/L	2.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A
16. Pyrene (SIM)	U		µg/L	5.0	5.3	05/19/11	PS11E19I	05/20/11	S711E20A

Cyanide, Total (EPA 9010C/EPA 9014)					Aliquot ID: 44583-012B		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	U		µg/L	5.0	1.0	05/18/11	PW11E18A	05/18/11	WP11E18A

Inorganic Anions by IC (EPA 9056)					Aliquot ID: 44583-012D		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	<b>180000</b>		µg/L	2000	4.0	05/19/11 15:02	PW11E19C	05/24/11 12:45	WC11E24A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>14</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)					Aliquot ID: 44583-014A		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
2. Barium	210		µg/L	100	10	05/18/11	PT11E18C	05/19/11	T211E19A
3. Cadmium	U		µg/L	1.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
4. Chromium	U		µg/L	10	10	05/18/11	PT11E18C	05/19/11	T211E19A
5. Copper	U		µg/L	4.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
6. Lead	U		µg/L	3.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
7. Selenium	U		µg/L	5.0	10	05/18/11	PT11E18C	05/19/11	T211E19A
8. Silver	U		µg/L	0.20	10	05/18/11	PT11E18C	05/19/11	T211E19A
9. Zinc	U		µg/L	50	10	05/18/11	PT11E18C	05/19/11	T211E19A

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 44583-014D		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U	J,N1	µg/L	5.0	1.0	NA	NA	05/17/11 12:07	WF11E17A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 44583-014A		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	05/19/11	PM11E19B	05/20/11	M411E20A

Organochlorine Pesticides (EPA 3535A/EPA 8081B)					Aliquot ID: 44583-014C		Matrix: Ground Water		Analyst: GAN
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aldrin	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
2. alpha-BHC (NN)	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
3. beta-BHC (NN)	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
4. delta-BHC	U	J,L-	µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
5. gamma-BHC (NN)	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
6. Chlordane (NN)	U		µg/L	0.050	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
7. 4,4'-DDD	U		µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
8. 4,4'-DDE	U		µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
9. 4,4'-DDT	U		µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
10. Dieldrin	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
11. Endosulfan I	U		µg/L	0.030	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
12. Endosulfan II	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
13. Endosulfan Sulfate	U	J,L-	µg/L	0.050	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
14. Endrin	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
15. Endrin Aldehyde	U	J,L-	µg/L	0.020	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
16. Heptachlor	U		µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
17. Heptachlor Epoxide	U	J,L-	µg/L	0.010	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A
18. Methoxychlor	U	J,L-	µg/L	0.50	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>14</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Organochlorine Pesticides (EPA 3535A/EPA 8081B)				Aliquot ID: 44583-014C			Matrix: Ground Water	Analyst: GAN	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
19. Toxaphene (NN)	U		µg/L	1.0	1.0	05/19/11	PS11E19G	05/19/11	SA11E19A

Organochlorine Herbicides (EPA 8151A)				Aliquot ID: 44583-014C			Matrix: Ground Water	Analyst: TMC	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. 2,4-D	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
2. Dalapon	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
3. 2,4-DB	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
4. Dicamba	U		µg/L	1.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
5. Dichlorprop (NN)	U		µg/L	10	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
6. Dinoseb (NN)	U		µg/L	5.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
7. 2,4,5-T	U		µg/L	1.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H
8. 2,4,5-TP (NN)	U		µg/L	1.0	1.0	05/19/11	PS11E10H	05/19/11	SC11E19H

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 44583-014			Matrix: Ground Water	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
2. Acrylonitrile	U		µg/L	2.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
3. Benzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
4. Bromobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
5. Bromochloromethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
6. Bromodichloromethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
7. Bromoform	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
8. Bromomethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
9. 2-Butanone	U		µg/L	25	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
10. n-Butylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
11. sec-Butylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
12. tert-Butylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
13. Carbon Disulfide	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
15. Chlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
16. Chloroethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
17. Chloroform	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
18. Chloromethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
20. Dibromochloromethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
22. Dibromomethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A

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F: (231) 775-8584

Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>14</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 44583-014		Matrix: Ground Water		Analyst: JAS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
35. Ethylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
36. Ethylene Dibromide	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
37. 2-Hexanone	U		µg/L	50	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
38. Isopropylbenzene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
39. Methyl Iodide	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
40. Methylene Chloride	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
42. MTBE	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
43. Naphthalene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
44. n-Propylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
45. Styrene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
48. Tetrachloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
49. Toluene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
53. Trichloroethene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
59. Vinyl Chloride	U		µg/L	1.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A
60. Xylenes	U		µg/L	3.0	1.0	05/19/11	VB11E19A	05/19/11	VB11E19A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44583-014C		Matrix: Ground Water		Analyst: TMC
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Shelby Twp.</b>	Sample Description:	<b>DUP2-GW</b>	Chain of Custody:	<b>108258</b>
Client Project Name:	<b>26500 Northwestern Highway</b>	Sample No:	<b>14</b>	Collect Date:	<b>05/16/11</b>
Client Project No:	<b>PE54232D-06</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)					Aliquot ID: 44583-014C		Matrix: Ground Water		Analyst: TMC
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
2. Acenaphthylene	U		µg/L	5.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
3. Anthracene	U		µg/L	5.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
4. Benzo(a)anthracene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
5. Benzo(a)pyrene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
6. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
7. Benzo(ghi)perylene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
8. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
9. Chrysene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
11. Fluoranthene	U		µg/L	1.1	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
12. Fluorene	U		µg/L	5.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
14. 2-Methylnaphthalene	U		µg/L	5.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
15. Phenanthrene	U		µg/L	2.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B
16. Pyrene	U		µg/L	5.0	1.1	05/19/11	PS11E19I	05/20/11	S111E19B

Cyanide, Total (EPA 9010C/EPA 9014)					Aliquot ID: 44583-014B		Matrix: Ground Water		Analyst: DMS
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Cyanide	U		µg/L	5.0	1.0	05/18/11	PW11E18A	05/18/11	WP11E18A

Inorganic Anions by IC (EPA 9056)					Aliquot ID: 44583-014D		Matrix: Ground Water		Analyst: CML
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Sulfate	<b>180000</b>		µg/L	2000	4.0	05/19/11 15:02	PW11E19C	05/24/11 13:02	WC11E24A

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

---

**Exception Summary:**

- L-** : Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.  
**N1** : Spiked sample recovery not within control limits.
- 







May 24, 2011

Case Narrative

Customer: SME

Project Identification: 26500 Northwestern Hwy/PE54232D-08

Fibertec Project Number: 44583

Sample Collection/ Receipt

The following samples were collected on May 16, 2011 and received by Fibertec on May 17, 2011.

10 Soil Samples (4 samples on hold)

5 Water Samples (3 samples on hold)

All samples were received on ice and in good condition.

Analysis

Analyses were conducted in accordance with chain of custody and within hold times.

All applicable quality assurance / quality control parameters were within acceptance limits unless otherwise noted.

Hexavalent Chromium

The spiked sample recovery for sample 44583-014 (Dup 2-GW) was not within control limits.

Pesticides

Samples 44583-012 (SB10-GW) and 44583-014 (Dup2-GW) are estimated for delta-BHC, heptachlor epoxide, dieldrin, endrin, endosulfan II, endrin aldehyde, endosulfan sulfate and methoxychlor, low laboratory control sample. Results may be biased low.

The following were reported with elevated reporting limits

<u>Laboratory Number</u>	<u>Sample ID</u>	<u>Analysis</u>	<u>Reason for elevated RL</u>
44583-002	SB2-S1	PNAs	Sample Matrix
44583-003	SB3-S1	PNAs	Sample Matrix
44583-004	SB3-S2	PNAs	Sample Matrix
44583-008	SB11-S1	PNAs	Sample Matrix
44583-009	Dup2-S	Metals, PNAs	Sample Matrix
44583-012	SB10-GW	Sulfate	Sample Matrix
44583-014	Dup2-GW	Sulfate	Sample Matrix

Sample data has been reviewed, and reported results remain valid.

Courtney Stoeck  
Authorized Signature

5-24-2011  
Date





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Geoprobe  
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Brighton, MI 48116  
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Fax: 810 220 3311

Chain of Custody #  
**108257**  
PAGE 1 of 2

emailed 5/17/11

Client Name: <u>SME Physiotherapy</u>		Contact Person: <u>Deb Osuch</u>																									
Project Name/ Number: <u>PE 512320-06</u>		Project Name/ Number: <u>26500 Northwestern Hwy</u>																									
Purchase Order #		MATRIX (SEE RIGHT CORNER FOR CODE)																									
LAB Sample #	Date	Time	Client Sample #	Client Sample Descriptor	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS				Turnaround	Matrix Code															
5/16/11	2:25	1	SB1-51		3	Y	VOL	8260	PAH	8270	10 ml metals	6020	Pesticides	8081	Herbicides	8151	10 ml metals	Gr <sup>6+</sup>	6020	Cu	9014	SO <sub>4</sub> <sup>2-</sup>	9056	24 hour RUSH (incharge applied)	S Soil	GW Ground Water	
	2:15	3	SB2-51			X																		48 hour RUSH (incharge applied)	W Water SW	Surface Water	
	1:15	3	SB3-51			X																		72 hour RUSH (incharge applied)	A Air	Waste Water	
	1:15	4	SB3-52			X																		Standard (s7 bus, dev)	COil	X	Other: Specify
	1:50	5	SB3-56	57																						P Wipe	
	12:00	6	SB10-51			X																					
	12:00	7	SB10-52			X																					
	11:00	8	SB11-51			X																					
		9	Dup 2-5			X																					
		10	Top Blank			X																					
Comments:																											
Relinquished By: <u>SME</u>					Date/Time: <u>5/16/11 4:00</u>	Received By: <u>SME Physio</u>																					
Relinquished By:					Date/Time:	Received By:																					
Relinquished By:					Date/Time:	Received By: Laboratory:																					
LAB USE ONLY:																											
Fibertec project number:																											
Laboratory Tracking:																											
Temperature at Receipt:																											

TERMS & CONDITIONS ON BACK





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email: asbestos@fibertec.us

**Geoprobe**  
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Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #  
**108257**  
PAGE 1 of 2

Client Name: <b>SME Plymouth</b>			Contact Person: <b>Deb Osuch</b>			Project Name/Number: <b>PE 512320-06</b>			
Purchase Order #			Client Sample Descriptor			MATRIX (SEE RIGHT CORNER FOR CODE)			
Lab Sample #	Date	Time	Client Sample #	# OF CONTAINERS					
5/16/11	2:25		1	VOC 8260					
	2:15		2	PAH 8270					
	1:15		3	10 ml metals 6020					
	1:15		4	Pesticides 8081					
	1:50		5	Herbicides 8151					
	12:00		6	10 ml metals 6020					
	12:00		7	Cr <sup>6+</sup> 6020					
	11:00		8	Cu 9014					
			9	SO <sub>4</sub> <sup>2-</sup> 9056					
			10	TNP Blank					
Comments:				PRESERVED (Y/N)					
				VOC 8260					
				PAH 8270					
				10 ml metals 6020					
				Pesticides 8081					
				Herbicides 8151					
				10 ml metals 6020					
				Cr <sup>6+</sup> 6020					
				Cu 9014					
				SO <sub>4</sub> <sup>2-</sup> 9056					
				TNP Blank					
				Remarks: <b>only vx is preserved</b>					
				Turnaround					
				Matrix Code					
				24 hour RUSH (surcharge applies)					
				48 hour RUSH (surcharge applies)					
				72 hour RUSH (surcharge applies)					
				Standard (5-7 bus. days)					
				Other: Specify					
				S Soil					
				W Water					
				A Air					
				O Oil					
				P Wipe					
				GW Ground Water					
				SW Surface Water					
				WW Waste Water					
				Other: Specify					
Relinquished By: <b>SME</b>				Date/Time: <b>5/16/11 4:00</b>				Received By: <b>SME</b>	
Relinquished By: <b>Jeremy Etras</b>				Date/Time: <b>5/17/11 08:10</b>				Received By: <b>SME</b>	
Relinquished By: <b>[Signature]</b>				Date/Time: <b>5/17/11 08:10</b>				Received By: <b>[Signature]</b>	
LAB USE ONLY:				Fibertec Project Number:				COC Revision: April, 2006	
Laboratory Tracking:				Temperature at Receipt:					

**ICE**  
2.0 °C

TERMS & CONDITIONS ON BACK

# Fibertec

environmental  
services

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Chain of Custody #  
**108258**  
PAGE 2 of 2

Client Name: <b>SME Plymouth</b>			Contact Person: <b>Des Busch</b>			Project Name/ Number: <b>2650 Northwestern Hwy Proj # PES4232 D-08</b>		
Purchase Order #			MATRIX (SEE RIGHT CORNER FOR CODE)			PRESERVED (Y/N)		
Lab Sample #			Client Sample #			Client Sample Descriptor		
Date			Time			Client Sample #		
5/16/11			1:30			11		
12:30			12			12		
12:30			13			13		
14			14			14		
15			15			15		
Comments:			Date/ Time			Received By:		
Relinquished By: <b>Steve Sae</b>			5/16/11 4:00			SPE Fildre		
Relinquished By: <b>Jeremy Efron</b>			5/17/11			Received By: <b>Steve Fildre</b>		
Relinquished By: <b>Steve Sae</b>			5/17/11			Received By: <b>Steve Fildre</b>		
LAB USE ONLY:			Fibertec project number:			Fibertec Tracking:		
Temperature at Receipt:			20.0			COC Revision: April, 2006		

Turnaround				Matrix Code			
24 hour RUSH (surcharge applies)	S Soil	GW Ground Water					
48 hour RUSH (surcharge applies)	W Water	SW Surface Water					
72 hour RUSH (surcharge applies)	A Air	WW Waste Water					
Standard (5-7 bus. days)	O Oil	Other: Specify					
Other: Specify	P Wipe						

Remarks:

only vials are returned





**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 1 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.** Client Project Name: **26500 Northwestern Highway** Client Project No: **PE54232D-06**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

**Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)**

**Matrix: Soil/Solid**

Parent Sample:	<b>44476-006A</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11 15:40</b>
MS Sample ID:	<b>44476-007A</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11 15:40</b>
MSD Sample ID:	<b>44476-008A</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11 15:40</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	2200	µg/kg	10000	12800	12000	106	98	70 - 130	8	20
2. Barium	6100	µg/kg	50000	57900	54700	104	97	70 - 130	7	20
3. Cadmium	50	µg/kg	10000	11000	10300	110	103	70 - 130	7	20
4. Chromium	4400	µg/kg	20000	24800	23600	102	96	70 - 130	6	20
5. Copper	4300	µg/kg	20000	24500	22900	101	93	70 - 130	8	20
6. Lead	2800	µg/kg	20000	22500	22000	99	96	70 - 130	3	20
7. Selenium	230	µg/kg	10000	10600	9950	104	97	70 - 130	7	20
8. Silver	<100	µg/kg	10000	10300	9960	103	100	70 - 130	3	20
9. Zinc	13000	µg/kg	50000	63500	60000	101	94	70 - 130	7	20

**Mercury by CVAAS (EPA 7471B)**

**Matrix: Soil/Solid**

Parent Sample:	<b>44476-006A</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11 15:40</b>
MS Sample ID:	<b>44476-007A</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11 15:40</b>
MSD Sample ID:	<b>44476-008A</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11 15:40</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<50	µg/kg (wet)	200	197	184	99	92	70 - 130	7	20

**Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)**

**Matrix: Soil/Solid**

Parent Sample:	<b>44476-006</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11 15:40</b>
MS Sample ID:	<b>44476-007</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11 15:40</b>
MSD Sample ID:	<b>44476-008</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11 15:40</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acetone	<1000	µg/kg (wet)	5000	5980	5770	120	115	40 - 207	4	20
2. Acrylonitrile	<100	µg/kg (wet)	5000	6550	6460	131	129	45 - 180	2	20
3. Benzene	<50	µg/kg (wet)	5000	4760	4780	95	96	63 - 141	1	20
4. Bromobenzene	<100	µg/kg (wet)	5000	4800	4810	96	96	70 - 144	0	20
5. Bromochloromethane	<100	µg/kg (wet)	5000	5290	5280	106	106	42 - 161	0	20
6. Bromodichloromethane	<100	µg/kg (wet)	5000	5350	5500	107	110	60 - 150	3	20
7. Bromoform	<100	µg/kg (wet)	5000	5580	5650	112	113	50 - 117	1	20
8. Bromomethane	<200	µg/kg (wet)	5000	3660	3620	73	72	58 - 217	1	20
9. 2-Butanone	<750	µg/kg (wet)	5000	5330	4920	107	98	42 - 193	9	20
10. n-Butylbenzene	<50	µg/kg (wet)	5000	5440	5530	109	111	65 - 151	2	20
11. sec-Butylbenzene	<50	µg/kg (wet)	5000	5320	5300	106	106	68 - 147	0	20
12. tert-Butylbenzene	<50	µg/kg (wet)	5000	5280	5260	106	105	68 - 140	1	20
13. Carbon Disulfide	<250	µg/kg (wet)	5000	3760	3880	75	78	36 - 143	4	20
14. Carbon Tetrachloride	<50	µg/kg (wet)	5000	4710	4860	94	97	50 - 159	3	20

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**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 2 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.** Client Project Name: **26500 Northwestern Highway** Client Project No: **PE54232D-06**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)							Matrix: Soil/Solid			
Parent Sample:	<b>44476-006</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>		Collect Date:	<b>05/10/11</b>	<b>15:40</b>	
MS Sample ID:	<b>44476-007</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>		Collect Date:	<b>05/10/11</b>	<b>15:40</b>	
MSD Sample ID:	<b>44476-008</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>		Collect Date:	<b>05/10/11</b>	<b>15:40</b>	
Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
15. Chlorobenzene	<50	µg/kg (wet)	5000	4400	4520	88	90	72 - 135	2	20
16. Chloroethane	<250	µg/kg (wet)	5000	4160	4160	83	83	16 - 207	0	20
17. Chloroform	<50	µg/kg (wet)	5000	5050	5030	101	101	47 - 159	0	20
18. Chloromethane	<250	µg/kg (wet)	5000	4600	4730	92	95	14 - 185	3	20
19. 2-Chlorotoluene	<50	µg/kg (wet)	5000	4850	4880	97	98	73 - 141	1	20
20. Dibromochloromethane	<100	µg/kg (wet)	5000	5290	5330	106	107	59 - 130	1	20
21. 1,2-Dibromo-3-chloropropane	<10	µg/kg (wet)	5000	5630	5730	113	115	34 - 164	2	20
22. Dibromomethane	<250	µg/kg (wet)	5000	4960	5070	99	101	66 - 134	2	20
23. 1,2-Dichlorobenzene	<100	µg/kg (wet)	5000	4610	4620	92	92	76 - 128	0	20
24. 1,3-Dichlorobenzene	<100	µg/kg (wet)	5000	4570	4580	91	92	72 - 136	1	20
25. 1,4-Dichlorobenzene	<100	µg/kg (wet)	5000	4260	4310	85	86	74 - 127	1	20
26. Dichlorodifluoromethane	<250	µg/kg (wet)	5000	5340	5400	107	108	10 - 207	1	20
27. 1,1-Dichloroethane	<50	µg/kg (wet)	5000	5080	5050	102	101	42 - 157	1	20
28. 1,2-Dichloroethane	<50	µg/kg (wet)	10000	9480	9610	95	96	56 - 146	1	20
29. 1,1-Dichloroethene	<50	µg/kg (wet)	5000	4830	4900	97	98	34 - 165	1	20
30. cis-1,2-Dichloroethene	<50	µg/kg (wet)	5000	5810	5850	116	117	43 - 170	1	20
31. trans-1,2-Dichloroethene	<50	µg/kg (wet)	5000	3810	3820	76	76	49 - 162	0	20
32. 1,2-Dichloropropane	<50	µg/kg (wet)	5000	5210	5240	104	105	62 - 151	1	20
33. cis-1,3-Dichloropropene	<50	µg/kg (wet)	5000	5540	5680	111	114	45 - 156	3	20
34. trans-1,3-Dichloropropene	<50	µg/kg (wet)	5000	5540	5680	111	114	40 - 157	3	20
35. Ethylbenzene	<50	µg/kg (wet)	5000	4600	4670	92	93	76 - 137	1	20
36. Ethylene Dibromide	<20	µg/kg (wet)	10000	9470	9640	95	96	71 - 133	1	20
37. 2-Hexanone	<2500	µg/kg (wet)	5000	5980	6140	120	123	29 - 211	2	20
38. Isopropylbenzene	<250	µg/kg (wet)	5000	5060	5170	101	103	68 - 153	2	20
39. Methyl Iodide	<100	µg/kg (wet)	5000	4020	3950	80	79	17 - 150	1	20
40. Methylene Chloride	<100	µg/kg (wet)	5000	4440	4330	89	87	38 - 180	2	20
41. 4-Methyl-2-pentanone	<2500	µg/kg (wet)	5000	5880	6040	118	121	55 - 161	3	20
42. MTBE	<250	µg/kg (wet)	10000	10500	10400	105	104	58 - 147	1	20
43. Naphthalene	<330	µg/kg (wet)	5000	5860	5860	117	117	45 - 180	0	20
44. n-Propylbenzene	<100	µg/kg (wet)	5000	5210	5170	104	103	71 - 146	1	20
45. Styrene	<50	µg/kg (wet)	5000	5170	5290	103	106	72 - 138	3	20
46. 1,1,1,2-Tetrachloroethane	<100	µg/kg (wet)	5000	4950	5030	99	101	61 - 131	2	20
47. 1,1,2,2-Tetrachloroethane	<50	µg/kg (wet)	5000	5270	5350	105	107	72 - 145	2	20
48. Tetrachloroethene	<50	µg/kg (wet)	5000	4330	4490	87	90	50 - 151	3	20
49. Toluene	<50	µg/kg (wet)	5000	4830	4890	97	98	65 - 144	1	20
50. 1,2,4-Trichlorobenzene	<330	µg/kg (wet)	5000	5140	5100	103	102	54 - 152	1	20
51. 1,1,1-Trichloroethane	<50	µg/kg (wet)	5000	4880	4930	98	99	46 - 156	1	20
52. 1,1,2-Trichloroethane	<50	µg/kg (wet)	5000	4880	5020	98	100	80 - 129	2	20
53. Trichloroethene	<50	µg/kg (wet)	5000	4910	4960	98	99	65 - 144	1	20

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**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 3 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.** Client Project Name: **26500 Northwestern Highway** Client Project No: **PE54232D-06**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

**Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)**

**Matrix: Soil/Solid**

Parent Sample:	<b>44476-006</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11 15:40</b>
MS Sample ID:	<b>44476-007</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11 15:40</b>
MSD Sample ID:	<b>44476-008</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11 15:40</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
54. Trichlorofluoromethane	<100	µg/kg (wet)	5000	4990	5110	100	102	31 - 226	2	20
55. 1,2,3-Trichloropropane	<100	µg/kg (wet)	5000	5100	5050	102	101	74 - 139	1	20
56. 1,2,3-Trimethylbenzene	<100	µg/kg (wet)	5000	4880	4910	98	98	77 - 133	0	20
57. 1,2,4-Trimethylbenzene	<100	µg/kg (wet)	5000	5090	5100	102	102	71 - 139	0	20
58. 1,3,5-Trimethylbenzene	<100	µg/kg (wet)	5000	5080	5090	102	102	71 - 138	0	20
59. Vinyl Chloride	<40	µg/kg (wet)	5000	5220	5210	104	104	25 - 189	0	20
60. Xylenes	<150	µg/kg (wet)	15000	14400	14500	96	97	69 - 134	1	20

**Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550C/EPA 8270C)**

**Matrix: Soil/Solid**

Parent Sample:	<b>44476-006A</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11 15:40</b>
MS Sample ID:	<b>44476-007A</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11 15:40</b>
MSD Sample ID:	<b>44476-008A</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11 15:40</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acenaphthene (SIM)	<330	µg/kg (wet)	5330	4520	4440	85	83	54 - 118	2	30
2. Acenaphthylene (SIM)	<330	µg/kg (wet)	5330	4480	4370	84	82	57 - 122	2	30
3. Anthracene (SIM)	<330	µg/kg (wet)	5330	4440	4340	83	81	56 - 119	2	30
4. Benzo(a)anthracene (SIM)	<330	µg/kg (wet)	5330	4420	4320	83	81	57 - 116	2	30
5. Benzo(a)pyrene (SIM)	<330	µg/kg (wet)	5330	4800	4700	90	88	64 - 124	2	30
6. Benzo(b)fluoranthene (SIM)	<330	µg/kg (wet)	5330	4800	4730	90	89	61 - 127	1	30
7. Benzo(ghi)perylene (SIM)	<330	µg/kg (wet)	5330	4680	4420	88	83	64 - 122	6	30
8. Benzo(k)fluoranthene (SIM)	<330	µg/kg (wet)	5330	4800	4740	90	89	60 - 122	1	30
9. Chrysene (SIM)	<330	µg/kg (wet)	5330	4090	4020	77	75	47 - 109	3	30
10. Dibenzo(a,h)anthracene (SIM)	<330	µg/kg (wet)	5330	4790	4600	90	86	67 - 127	5	30
11. Fluoranthene (SIM)	<330	µg/kg (wet)	5330	4860	4700	91	88	59 - 128	3	30
12. Fluorene (SIM)	<330	µg/kg (wet)	5330	4550	4470	85	84	58 - 124	1	30
13. Indeno(1,2,3-cd)pyrene (SIM)	<330	µg/kg (wet)	5330	4640	4400	87	82	74 - 137	6	30
14. 2-Methylnaphthalene (SIM)	<330	µg/kg (wet)	5330	3820	3740	72	70	18 - 97	3	30
15. Phenanthrene (SIM)	<330	µg/kg (wet)	5330	4650	4550	87	85	56 - 119	2	30
16. Pyrene (SIM)	<330	µg/kg (wet)	5330	4700	4630	88	87	61 - 122	1	30

**Cyanide, Total (CLP ISM01.2/EPA 9014)**

**Matrix: Soil/Solid**

Parent Sample:	<b>44476-006A</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11 15:40</b>
MS Sample ID:	<b>44476-007A</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11 15:40</b>
MSD Sample ID:	<b>44476-008A</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11 15:40</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Cyanide	<200	µg/kg (wet)	3000	3100	3080	103	103	-	0	

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**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 4 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.**      Client Project Name: **26500 Northwestern Highway**      Client Project No: **PE54232D-06**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions:      Q: Qualifier (see definitions at end of report)      NA: Not Applicable

Inorganic Anions by IC (EPA 0300.0/EPA 9056)						Matrix: Soil/Solid				
Parent Sample:	<b>44476-006A</b>	Description:	<b>SB8-S1</b>	Sample No:	<b>6</b>	Collect Date:	<b>05/10/11</b>	<b>15:40</b>		
MS Sample ID:	<b>44476-007A</b>	Description:	<b>SB8-S1 MS</b>	Sample No:	<b>7</b>	Collect Date:	<b>05/10/11</b>	<b>15:40</b>		
MSD Sample ID:	<b>44476-008A</b>	Description:	<b>SB8-S1 MSD</b>	Sample No:	<b>8</b>	Collect Date:	<b>05/10/11</b>	<b>15:40</b>		
Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Sulfate	<10000	µg/kg (wet)	250000	217000	224000	84 *	87 *	90 - 110	4	20

**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 5 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.**      Client Project Name: **26500 Northwestern Highway**      Client Project No: **PE54232D-06**

Sample Comments:

Definitions:      Q: Qualifier (see definitions at end of report)      NA: Not Applicable

**Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A)** **Matrix: Ground Water**

Parent Sample:	<b>44476-015B</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11 16:00</b>
MS Sample ID:	<b>44476-016B</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11 16:00</b>
MSD Sample ID:	<b>44476-017B</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11 16:00</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	7.6	µg/L	100	123	123	115	116	70 - 130	1	20
2. Barium	120	µg/L	500	658	647	108	106	70 - 130	2	20
3. Cadmium	<1.0	µg/L	100	117	116	117	116	70 - 130	1	20
4. Chromium	<10	µg/L	200	207	207	102	102	70 - 130	0	20
5. Copper	<4.0	µg/L	200	214	218	107	109	70 - 130	2	20
6. Lead	<3.0	µg/L	200	201	200	100	100	70 - 130	0	20
7. Selenium	<5.0	µg/L	100	116	116	116	116	70 - 130	0	20
8. Silver	<0.20	µg/L	100	109	108	109	108	70 - 130	1	20
9. Zinc	<50	µg/L	500	522	540	102	106	70 - 130	4	20

**Mercury by CVAAS, Total (EPA 7470A)** **Matrix: Ground Water**

Parent Sample:	<b>44476-015B</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11 16:00</b>
MS Sample ID:	<b>44476-016B</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11 16:00</b>
MSD Sample ID:	<b>44476-017B</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11 16:00</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<0.20	µg/L	0.200	0.205	0.213	103	107	70 - 130	4	20

**Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)** **Matrix: Ground Water**

Parent Sample:	<b>44476-015</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11 16:00</b>
MS Sample ID:	<b>44476-016</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11 16:00</b>
MSD Sample ID:	<b>44476-017</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11 16:00</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acetone	<50	µg/L	100	134	131	134	131	19 - 165	2	20
2. Acrylonitrile	<2.0	µg/L	100	110	112	110	112	43 - 155	2	20
3. Benzene	<1.0	µg/L	100	113	110	113	110	69 - 137	3	20
4. Bromobenzene	<1.0	µg/L	100	116	115	116	115	65 - 140	1	20
5. Bromochloromethane	<1.0	µg/L	100	108	105	108	105	33 - 141	3	20
6. Bromodichloromethane	<1.0	µg/L	100	123	118	123	118	84 - 144	4	20
7. Bromoform	<1.0	µg/L	100	120	127	120	127	66 - 136	6	20
8. Bromomethane	<5.0	µg/L	100	145	165	145	165	56 - 172	13	20
9. 2-Butanone	<25	µg/L	100	111	111	111	111	28 - 176	0	20
10. n-Butylbenzene	<1.0	µg/L	100	124	120	124	120	63 - 149	3	20
11. sec-Butylbenzene	<1.0	µg/L	100	117	114	117	114	61 - 143	3	20
12. tert-Butylbenzene	<1.0	µg/L	100	113	110	113	110	70 - 139	3	20
13. Carbon Disulfide	<5.0	µg/L	100	125	122	125	122	27 - 166	2	20
14. Carbon Tetrachloride	<1.0	µg/L	100	127	122	127	122	70 - 140	4	20

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**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 6 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers,  
Inc. - Shelby Twp.**

Client Project Name: **26500 Northwestern Highway**

Client Project No: **PE54232D-06**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

**Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)**

**Matrix: Ground Water**

Parent Sample:	<b>44476-015</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11 16:00</b>
MS Sample ID:	<b>44476-016</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11 16:00</b>
MSD Sample ID:	<b>44476-017</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11 16:00</b>

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
15. Chlorobenzene	<1.0	µg/L	100	109	108	109	108	88 - 126	1	20
16. Chloroethane	<5.0	µg/L	100	131	128	131	128	33 - 172	2	20
17. Chloroform	<1.0	µg/L	100	117	117	117	117	66 - 138	0	20
18. Chloromethane	<5.0	µg/L	100	79.4	92.7	79	93	45 - 153	16	20
19. 2-Chlorotoluene	<5.0	µg/L	100	117	114	117	114	75 - 137	3	20
20. Dibromochloromethane	<5.0	µg/L	100	121	117	121	117	83 - 127	3	20
21. 1,2-Dibromo-3-chloropropane	<1.0	µg/L	100	101	104	101	104	66 - 134	3	20
22. Dibromomethane	<5.0	µg/L	100	98.7	97.7	99	98	67 - 148	1	20
23. 1,2-Dichlorobenzene	<1.0	µg/L	100	105	103	105	103	71 - 154	2	20
24. 1,3-Dichlorobenzene	<1.0	µg/L	100	107	106	107	106	74 - 156	1	20
25. 1,4-Dichlorobenzene	<1.0	µg/L	100	104	102	104	102	89 - 121	2	20
26. Dichlorodifluoromethane	<5.0	µg/L	100	125	120	125	120	44 - 188	4	20
27. 1,1-Dichloroethane	<1.0	µg/L	100	117	116	117	116	59 - 145	1	20
28. 1,2-Dichloroethane	<1.0	µg/L	200	260	246	130	123	68 - 143	6	20
29. 1,1-Dichloroethene	<1.0	µg/L	100	128	123	128	123	56 - 163	4	20
30. cis-1,2-Dichloroethene	<1.0	µg/L	100	123	121	123	121	54 - 161	2	20
31. trans-1,2-Dichloroethene	<1.0	µg/L	100	131	131	131	131	56 - 153	0	20
32. 1,2-Dichloropropane	<1.0	µg/L	100	119	115	119	115	66 - 135	3	20
33. cis-1,3-Dichloropropene	<1.0	µg/L	100	115	111	115	111	81 - 144	4	20
34. trans-1,3-Dichloropropene	<1.0	µg/L	100	121	115	121	115	66 - 150	5	20
35. Ethylbenzene	<1.0	µg/L	100	114	112	114	112	88 - 131	2	20
36. Ethylene Dibromide	<1.0	µg/L	200	221	219	111	109	86 - 131	2	20
37. 2-Hexanone	<50	µg/L	100	139	140	139	140	37 - 183	1	20
38. Isopropylbenzene	<5.0	µg/L	100	115	112	115	112	89 - 148	3	20
39. Methyl Iodide	<5.0	µg/L	100	103	125	103	125	38 - 159	19	20
40. Methylene Chloride	<5.0	µg/L	100	129	127	129	127	38 - 149	2	20
41. 4-Methyl-2-pentanone	<50	µg/L	100	142	135	142	135	60 - 152	5	20
42. MTBE	<5.0	µg/L	200	254	255	127	128	54 - 144	1	20
43. Naphthalene	<5.0	µg/L	100	109	109	109	109	64 - 158	0	20
44. n-Propylbenzene	<1.0	µg/L	100	119	116	119	116	64 - 146	3	20
45. Styrene	<1.0	µg/L	100	117	113	117	113	79 - 129	3	20
46. 1,1,1,2-Tetrachloroethane	<1.0	µg/L	100	114	113	114	113	84 - 135	1	20
47. 1,1,2,2-Tetrachloroethane	<1.0	µg/L	100	116	114	116	114	69 - 141	2	20
48. Tetrachloroethene	<1.0	µg/L	100	105	103	105	103	81 - 145	2	20
49. Toluene	<1.0	µg/L	100	110	107	110	107	77 - 135	3	20
50. 1,2,4-Trichlorobenzene	<5.0	µg/L	100	110	107	110	107	73 - 152	3	20
51. 1,1,1-Trichloroethane	<1.0	µg/L	100	123	121	123	121	69 - 143	2	20
52. 1,1,2-Trichloroethane	<1.0	µg/L	100	101	101	101	101	84 - 122	0	20
53. Trichloroethene	<1.0	µg/L	100	106	103	106	103	72 - 143	3	20

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**Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476**

Order: 44476  
Page: 7 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.**      Client Project Name: **26500 Northwestern Highway**      Client Project No: **PE54232D-06**

Sample Comments:

Definitions:      Q: Qualifier (see definitions at end of report)      NA: Not Applicable

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)						Matrix: Ground Water				
Parent Sample:	<b>44476-015</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		
MS Sample ID:	<b>44476-016</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		
MSD Sample ID:	<b>44476-017</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
54. Trichlorofluoromethane	<1.0	µg/L	100	133	127	133	127	41 - 181	5	20
55. 1,2,3-Trichloropropane	<1.0	µg/L	100	117	112	117	112	82 - 127	4	20
56. 1,2,3-Trimethylbenzene	<1.0	µg/L	100	112	109	112	109	80 - 133	3	20
57. 1,2,4-Trimethylbenzene	<1.0	µg/L	100	117	116	117	116	81 - 140	1	20
58. 1,3,5-Trimethylbenzene	<1.0	µg/L	100	115	112	115	112	82 - 140	3	20
59. Vinyl Chloride	<1.0	µg/L	100	130	131	130	131	40 - 174	1	20
60. Xylenes	<3.0	µg/L	300	349	340	116	113	85 - 133	3	20

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535A/EPA 8270C)						Matrix: Ground Water				
Parent Sample:	<b>44476-015D</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		
MS Sample ID:	<b>44476-016D</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		
MSD Sample ID:	<b>44476-017D</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acenaphthene	<5.0	µg/L	84.2	66.0	74.0	78	88	47 - 125	12	30
2. Acenaphthylene	<5.0	µg/L	84.2	67.9	75.9	81	90	46 - 124	11	30
3. Anthracene	<5.0	µg/L	84.2	66.8	73.4	79	87	45 - 131	10	30
4. Benzo(a)anthracene	<1.0	µg/L	84.2	70.7	76.6	84	91	43 - 133	8	30
5. Benzo(a)pyrene	<1.0	µg/L	84.2	72.5	78.8	86	94	46 - 134	9	30
6. Benzo(b)fluoranthene	<1.0	µg/L	84.2	72.7	79.6	86	95	45 - 136	10	30
7. Benzo(ghi)perylene	<1.0	µg/L	84.2	64.2	69.1	76	82	37 - 140	8	30
8. Benzo(k)fluoranthene	<1.0	µg/L	84.2	71.8	78.1	85	93	44 - 135	9	30
9. Chrysene	<1.0	µg/L	84.2	61.7	66.5	73	79	35 - 131	8	30
10. Dibenzo(a,h)anthracene	<2.0	µg/L	84.2	67.8	73.9	80	88	40 - 139	10	30
11. Fluoranthene	<1.0	µg/L	84.2	72.4	78.6	86	93	48 - 137	8	30
12. Fluorene	<5.0	µg/L	84.2	68.6	76.0	81	90	59 - 121	11	30
13. Indeno(1,2,3-cd)pyrene	<2.0	µg/L	84.2	68.2	75.8	81	90	38 - 145	11	30
14. 2-Methylnaphthalene	<5.0	µg/L	84.2	54.7	63.1	65	75	39 - 105	14	30
15. Phenanthrene	<2.0	µg/L	84.2	67.7	74.8	80	89	54 - 120	11	30
16. Pyrene	<5.0	µg/L	84.2	71.3	77.9	85	92	52 - 115	8	30

Cyanide, Total (EPA 9010C/EPA 9014)						Matrix: Ground Water				
Parent Sample:	<b>44476-015C</b>	Description:	<b>SB8-GW</b>	Sample No:	<b>15</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		
MS Sample ID:	<b>44476-016C</b>	Description:	<b>SB8-GW MS</b>	Sample No:	<b>16</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		
MSD Sample ID:	<b>44476-017C</b>	Description:	<b>SB8-GW MSD</b>	Sample No:	<b>17</b>	Collect Date:	<b>05/10/11</b>	<b>16:00</b>		

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Cyanide	<5.0	µg/L	250	230	221	92	88	-	4	

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Quality Control Report  
Matrix Spike Summary  
Laboratory Project Number: 44476

Order: 44476  
Page: 8 of 9  
Date: 05/19/11

Client Identification: **Soil and Materials Engineers, Inc. - Shelby Twp.** Client Project Name: **26500 Northwestern Highway** Client Project No: **PE54232D-06**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Inorganic Anions by IC (EPA 9056)					Matrix: Ground Water					
Parent Sample:	44476-015A	Description:	SB8-GW	Sample No:	15	Collect Date:	05/10/11	16:00		
MS Sample ID:	44476-016A	Description:	SB8-GW MS	Sample No:	16	Collect Date:	05/10/11	16:00		
MSD Sample ID:	44476-017A	Description:	SB8-GW MSD	Sample No:	17	Collect Date:	05/10/11	16:00		
Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Sulfate	140000	µg/L	25000	156000	156000	79 *	80 *	90 - 110	1	20

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**Definitions/ Qualifiers:**

**A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

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**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

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**Laboratory Approval:**



Daryl P. Strandbergh  
Laboratory Director



Peter J. Priniski  
Quality Assurance Officer



Accreditation Number:

**E-10395**



**APPENDIX C**

**GEOPHYSICAL REPORT**

19 January 2011

Paul Roberts  
Soil & Materials Engineers  
43980 Plymouth Oaks Blvd  
Plymouth, Michigan 48170

**Re: Geophysical Investigation, 26500 NW Highway Southfield, Michigan: Geophysical Survey  
Letter Report  
Geosphere Project No. 10-744  
SME Project No. PE54232D-06**

Dear Paul:

We have completed our data analysis, interpretation, and report describing the geophysical survey conducted 4 and 5 January 2011 at the Commercial Property at 26500 NW Highway, Southfield, Michigan. This site was unoccupied at the time of survey. The site was surveyed with EM31 and gradiometer magnetometer instruments supported by ground penetrating radar (GPR) lines.

#### **SITE SETTING**

The site is situated between two major highways, Interstate 696 and Michigan Route 10 (Lodge Freeway); Northwestern Highway acts as a service road along the northern side of M-10. The property lies immediately north of Northwestern Highway and just east of Lahser Road. The property contains a large multi-stored commercial building surrounded by parking lots on the east, north and west sides. The largest north lot extends from Lahser Road to the eastern property line; the east and west lots extend to NW Highway on the south property line. A large electrical transformer is located in the center of the North Lot, off the northwest corner of the Building. An aluminum/steel framed canopy (for parked cars) lies along the east property line in the east parking lot.

#### **GEOPHYSICAL GRID**

The geophysical grid was setup using the eastern and northern edges of the Commercial Building; this northeast building corner was used as a reference position (400E/000N). The grid was expanded to the west to gridline 040E (west Lot sidewalk), to the north to gridline 110N (north Lot fence), to the east to gridline 470E (east property line) and to the south to gridline -260N (sidewalk along NW Highway) (Figure 1.2). Red spray paint was used to mark grid nodes at 10-foot increments on the parking areas. Detailed coverage was made over this grid using EM31 and gradiometer magnetometer instruments for the detection and location of possible buried pipes, rebar in foundations, tanks, metal/concrete debris, and other anomalous subsurface conditions. The east lot coverage was focused in the center of the east lot as directed by the client. A professional Leica GPS unit was used to determine State Plane coordinates at 13 locations on our grid system.

Geophysical coverage is shown in Figure 3.1; data were collected at 2-foot intervals on each EM and Magnetometer line. Primary data were collected in the east-west direction over the three parking areas with 5-foot spacing. Secondary lines were made with EM in the north-south direction, to check for pipes oriented east-west. Radar lines were made over pipe, cable and other EM/Mag anomalies. Locations of power poles, manholes, and other cultural features are also plotted on these maps for reference.

## GEOPHYSICAL SURVEY RESULTS

EM and magnetic contour maps are presented in Figures 4.1, 4.2, and 4.3 respectively. Figure 4.4 shows the combined EM, Mag and radar anomalies (without the color contours) showing disturbed soil/possible filled basement zones.

**EM/Mag Results:** The Conductivity and Inphase Metal maps given in Figures 4.1 and 4.2 provide a good overall view showing the major electrical conduits and pipes across the entire site. These include the main power feed to the large electrical transformers in the center of the North Lot and wires feeding the Building. Also seen are smaller wires servicing all the electrical light poles scattered over the property. A probable water pipe appears to run along the western site boundary near Lahser Road; another water pipe is interpreted east of the building in the east lot. Large unexplained metal anomalies are observed in Figure 4.2 along the 25N gridline at 120E, 230E and 430E; these might be associated with an old drainage system/catch structures, or zones of unknown fill/basement structures. Another smaller zone is found at coordinates 240E/-15N. The anomaly at 240E/-240N is a gas meter structure with steel bumper posts.

The conductivity map shows a large zone of high conductivity values north and northwest of the Building. This might be due to the use of road salt employed for de-icing in the winter months, or caused by previous land use prior to lot construction. Anomalous contours observed along the west side of the Building are caused by the loading dock area, steel fencing and concrete storage areas. The canopy area on the east side also caused a large anomaly. The large anomaly immediately north of the Building is caused by steel in the frame of the Building's structure.

The magnetic contours (Figure 4.3) also show a large effect north (and east) of the Building caused by the structural steel. Large anomalies are also associated with the steel transformer structure and parking sign posts along the 35N gridline; other anomalies are associated with the light posts found around the site. A zone of small anomalies at coordinates 240E/25N correlates with the EM anomaly east of a drain grate; other small anomalies occur at 240E/-20N. Anomalies along the west boundary on Lahser Road are likely associated with the interpreted water pipe (EM data). Anomalies seen near the east entrance are caused by structural steel in the protruding entrance roof. Anomalies seen near the canopy area are typical of the steel visible supporting the canopy roof. There are no visible anomalies that are characteristic of buried tanks or other large structures.

**Radar Results:** Radar lines were run over the areas showing EM/mag anomalies as well as several long lines to check general site conditions. EM anomalies in the 120E/20N area were checked with five lines. Interpretation of these sections indicate that two potential former basements are found in this area (Figure 4.4); they are likely filled with debris. More importantly, was the discovery of a large pipe-like structure running east-west through the western half of the site (070E to 305E); it appears to be 2 to 3+ feet in diameter and is composed of a non-metal material such as concrete or plastic. It lies 3 to 4 feet below the asphalt surface. It might be related to an old drainage system.

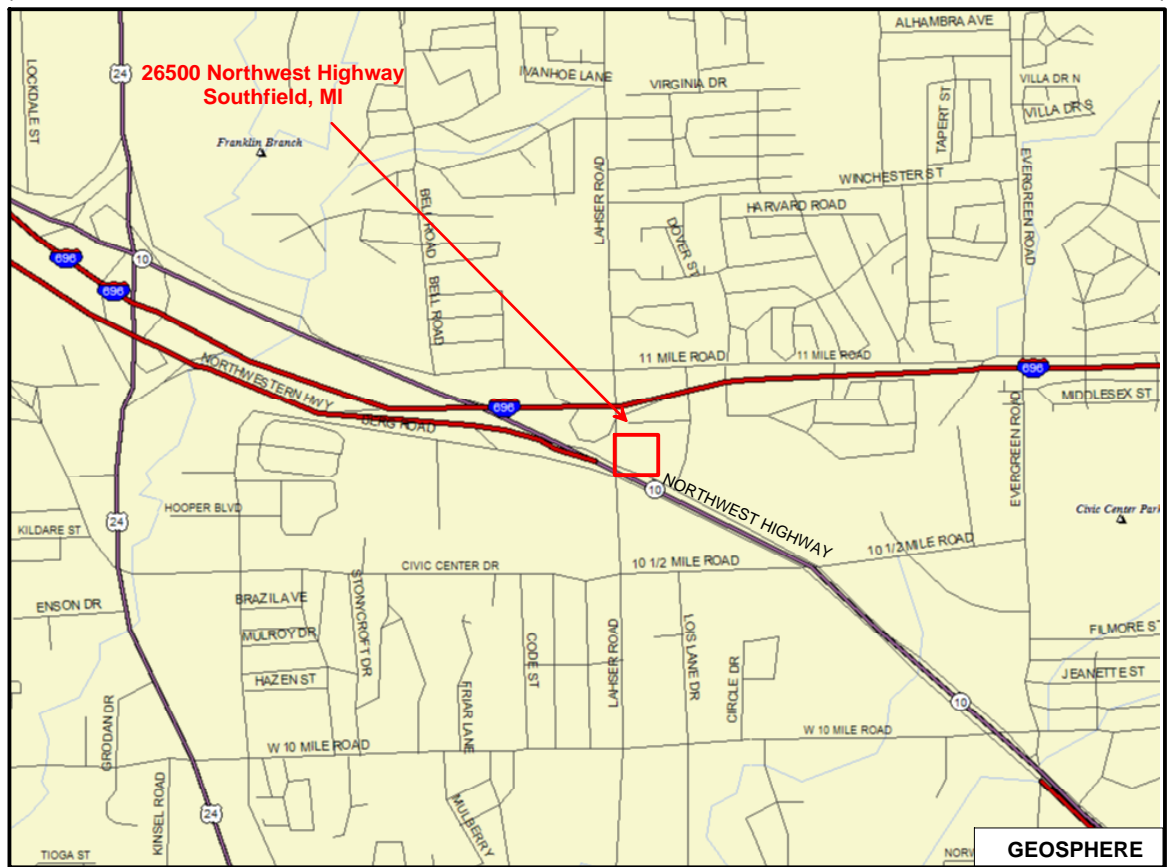
Other large zones of disturbed soil are found at 200E/20N and 200E/70N; these also may be filled basements or large zones of deeply disturbed soil. Smaller zones of soil disturbance are found along the 275E line, particularly near the northwest building corner and the electrical transformer area. Other potential filled basement locations are found at 430E/25N and 460E/-160N under the canopy area. Small metal debris may lie in the 430E/25N location; two pipes/conduit also pass through this zone (Figure 4.4). Radar was able to image a large (water?) pipe along gridline 425E at a depth of 6 to 7 feet. Smaller zones of disturbed soil were also found near the east entranceway and near the two drain structures (-220N).

Results and interpretations in this report are provided on a best possible basis, given the limits of the three techniques. Direct sampling methods should be used to confirm these interpreted features. If you have any questions, please contact me at 989-662-6149 or email [rglaccum@geosphereinc.com](mailto:rglaccum@geosphereinc.com).

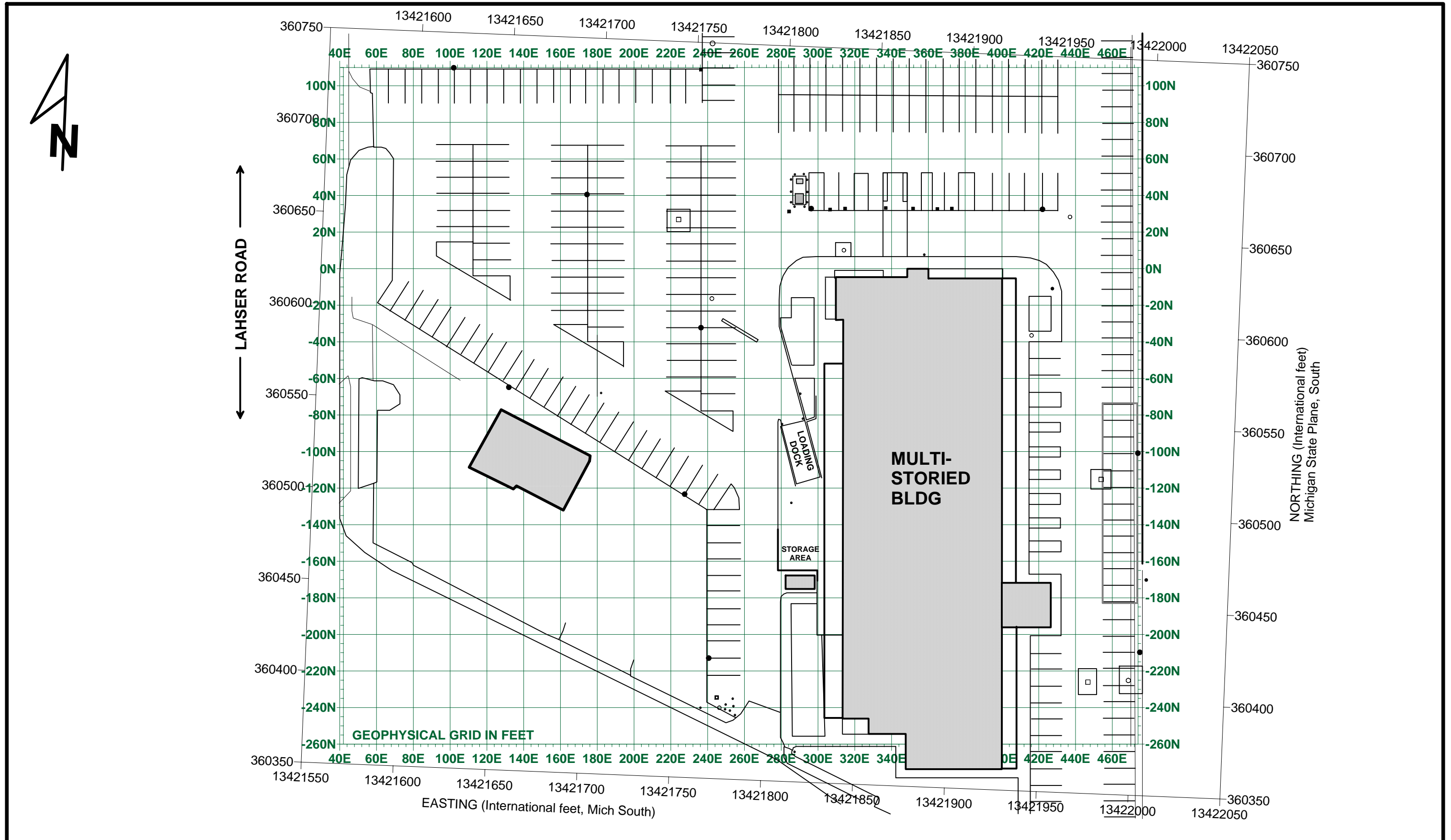
Sincerely,

A handwritten signature in blue ink, reading "Robert A. Glaccum", followed by a long horizontal flourish.

Robert A. Glaccum, PG  
Project Manager



GENERAL SITE LOCATION MAP



**COMMERCIAL SITE  
26500 NORTHWESTERN HIGHWAY  
SOUTHFIELD, MICHIGAN**

**MAP SCALE (feet)**  
0 25 50 75 100 125 150 175 200 225 250  
**GEOSPHERE** **01-15-2011**

**DETAILED SITE MAP  
WITH GEOPHYSICAL SURVEY AND  
MICHIGAN STATE PLANE GRIDS**

**FIGURE 1.2**



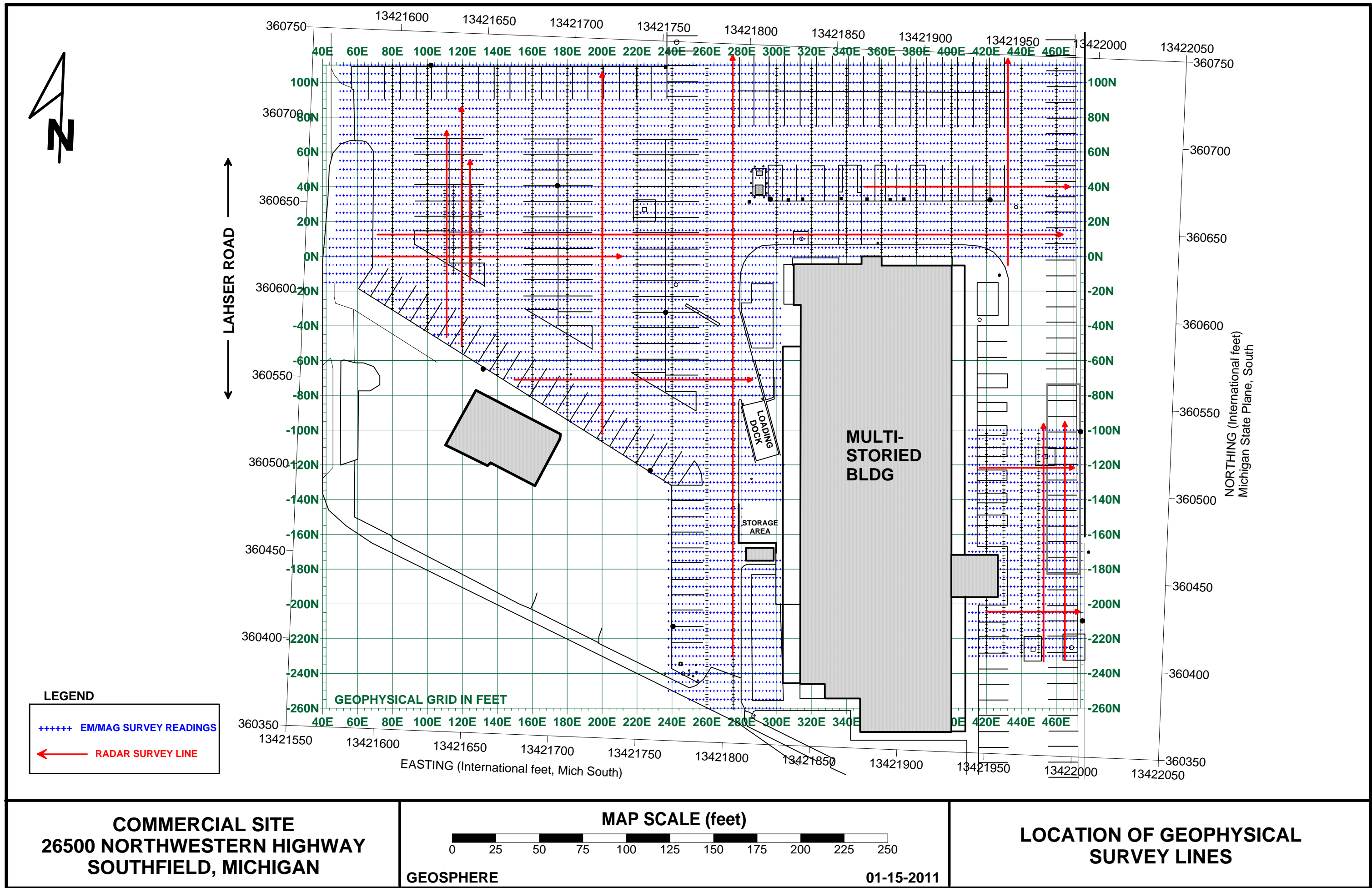
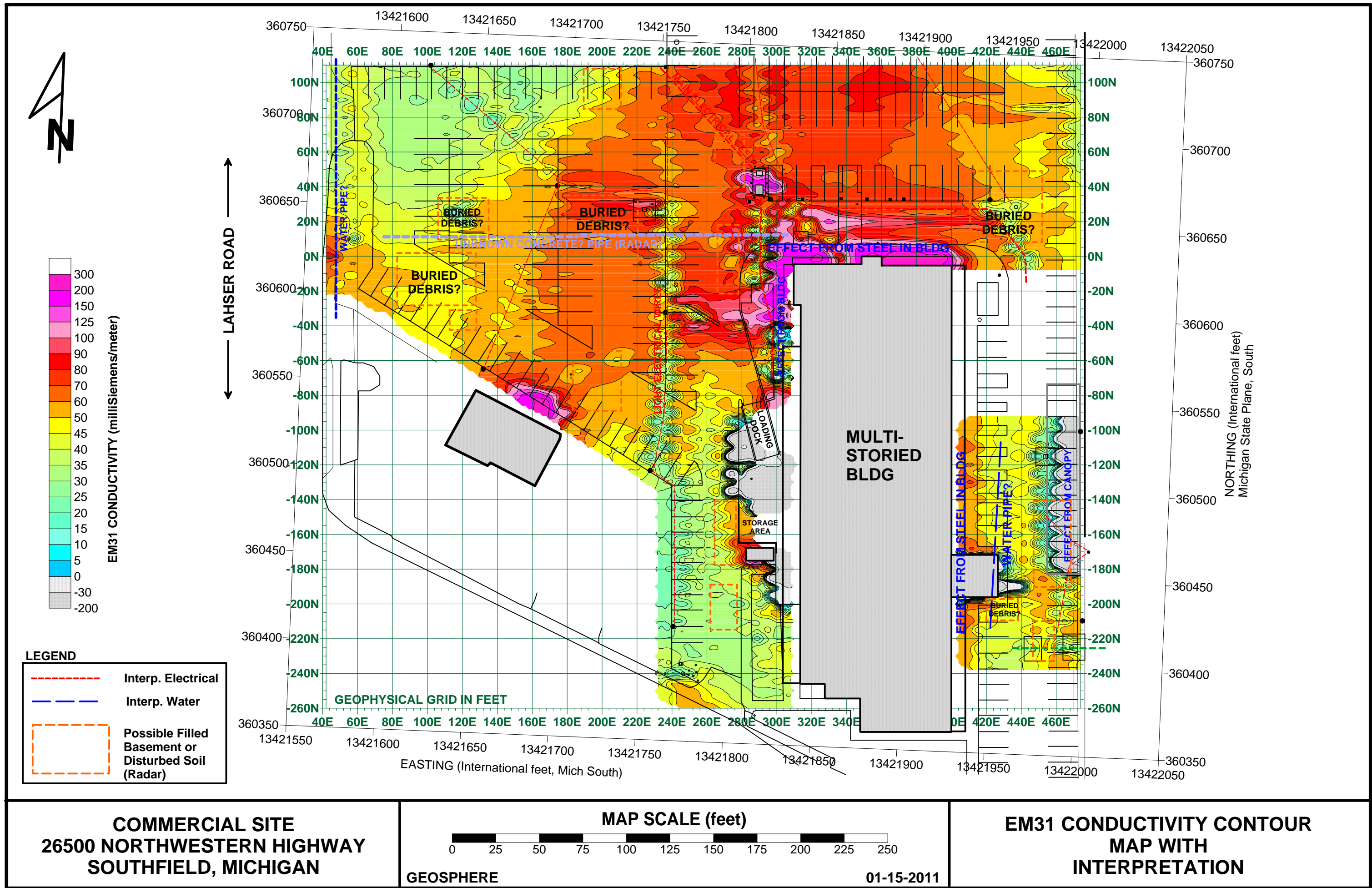


FIGURE 3.1



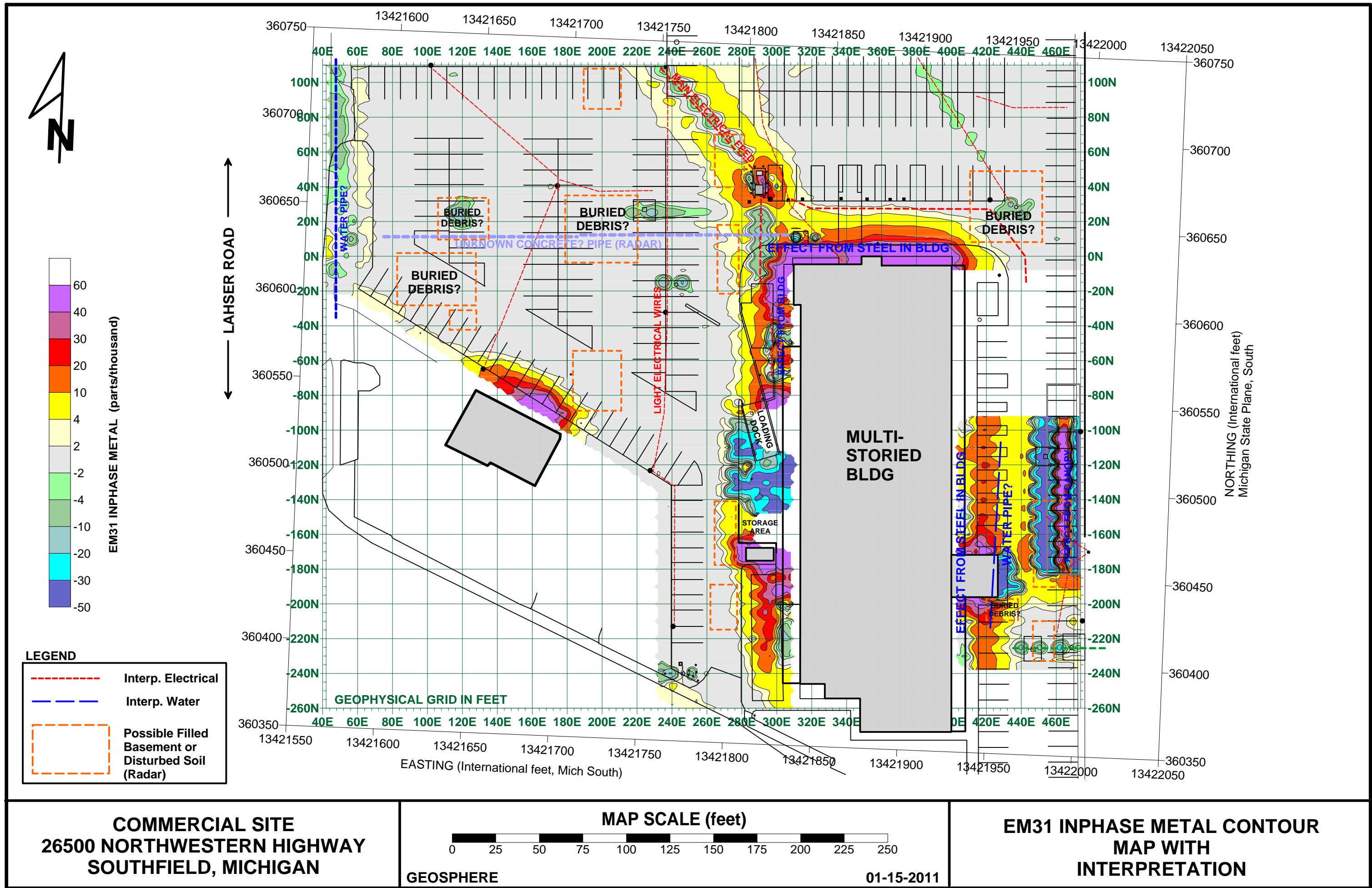


FIGURE 4.2



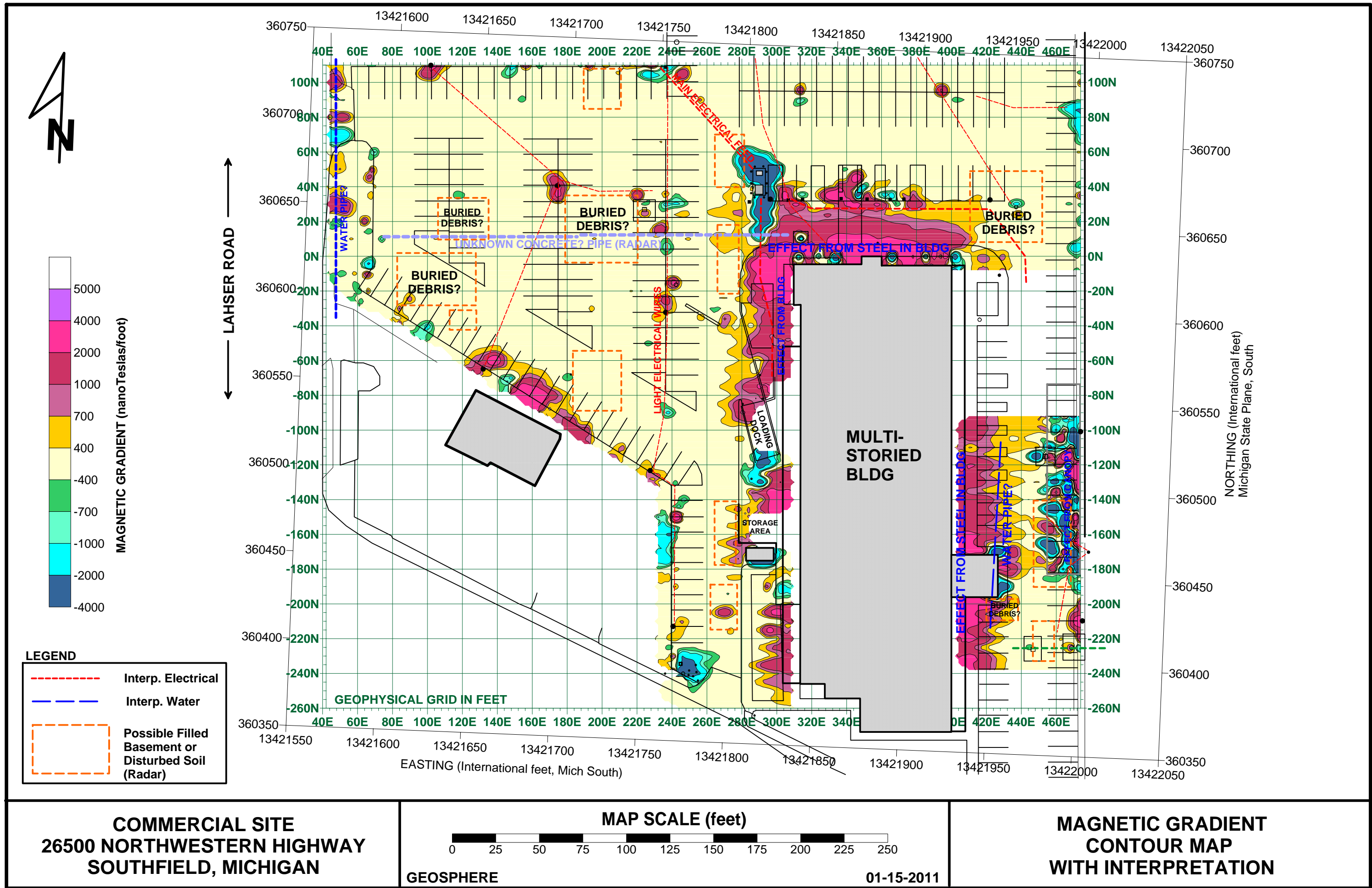
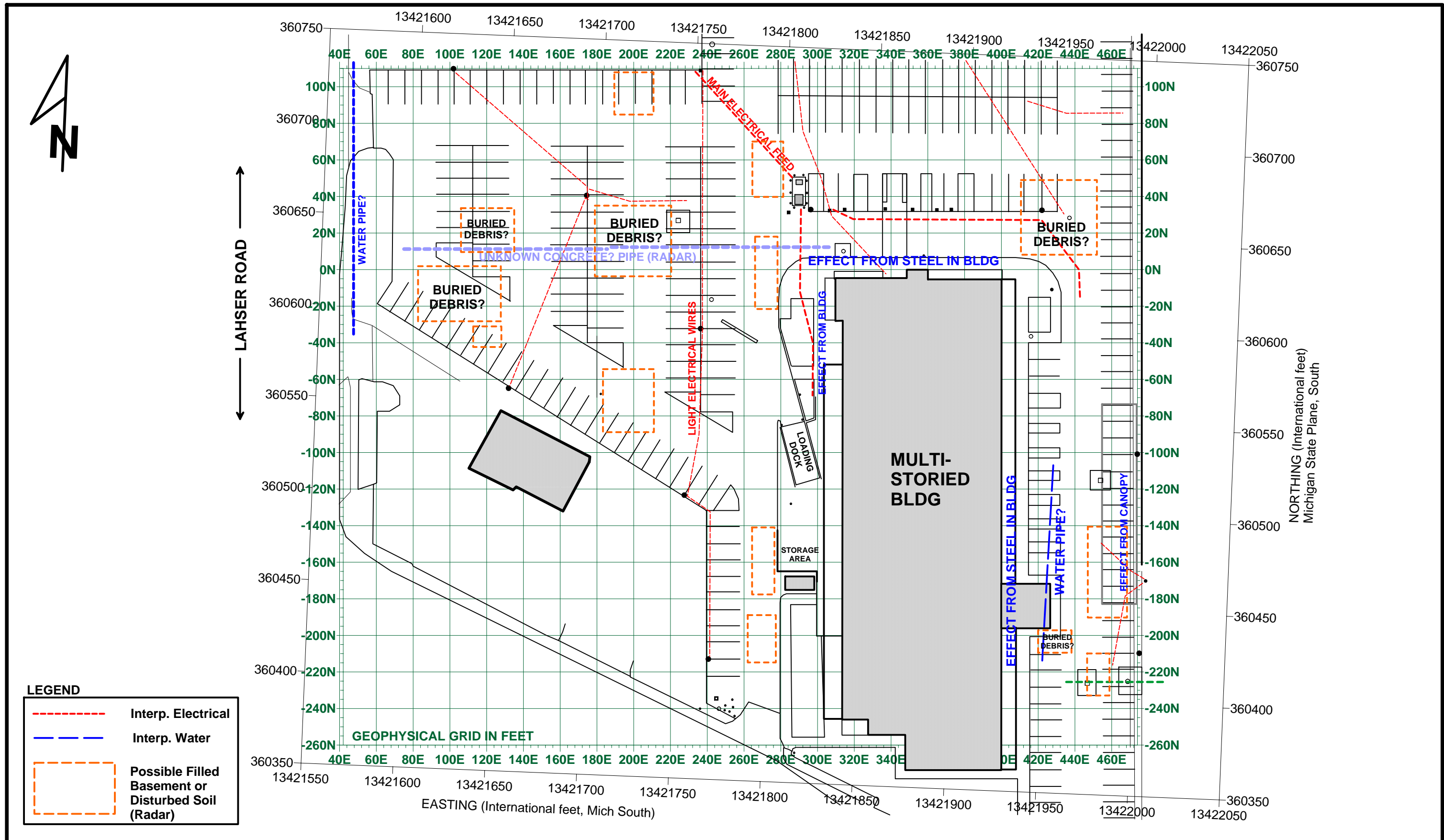
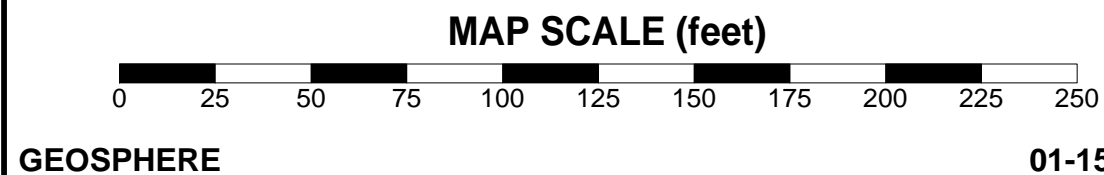


FIGURE 4.3



COMMERCIAL SITE  
26500 NORTHWESTERN HIGHWAY  
SOUTHFIELD, MICHIGAN



COMBINED EM31, MAGNETIC  
AND RADAR  
ANOMALY MAP

FIGURE 4.4